SONY

PAL/SECAM

Video Equipment 2000

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- 0dBu=0.775 Vrms.

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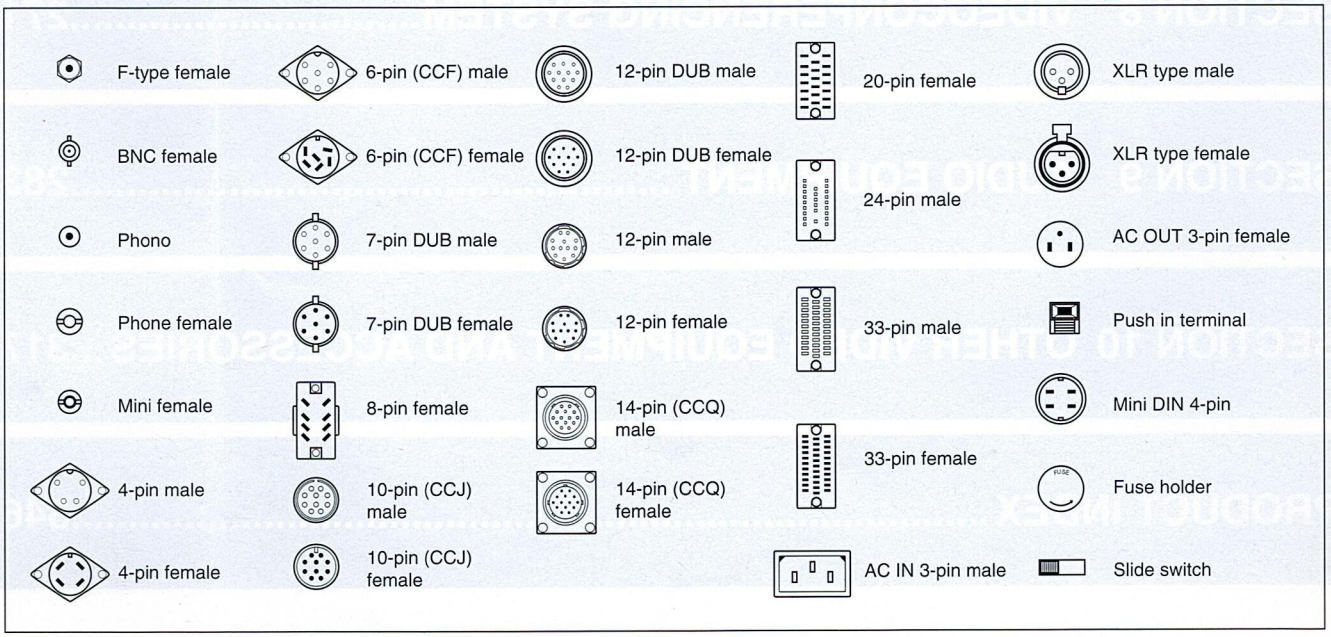

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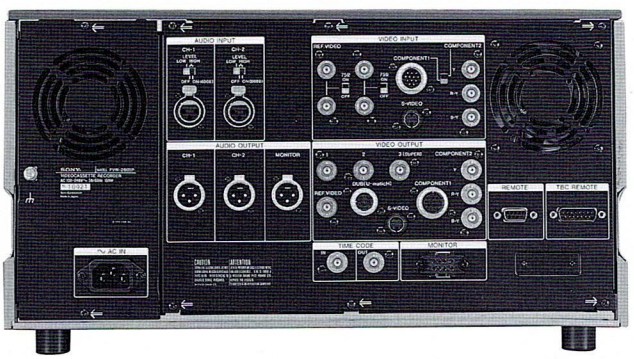
PVW-2800P

BETACAM SP 2000PRO

Editing Recorder

•Superior picture quality, inherent in the Betacam SP format •More than 100 minutes of recording/playback time using L-size Metal (for both recording and playback) or Oxide (for playback only) cassettes •High speed picture search provides recognizable colour pictures at up to 10 times normal speed in forward and reverse (24 times in monochrome) •Two longitudinal audio channels with Dolby C-type NR (Noise Reduction) system •RS-422A 9-pin interface with other RS-422A equipped Sony machines (ex. Betacam/Betacam SP VTRs, DVCAM VTRs) •Built-in comprehensive editing facilities •Dynamic Motion Control with memory provides slow-motion editing capability (when used with a player VTR equipped with DT function) •Built-in Time Base Corrector with advanced high quality digital dropout compensator •TBC remote control from an optional UVR-60P •Built-in LTC/VITC/User Bits generator and reader •Built-in character generator •Enhanced serviceability with built-in self-diagnostics •User friendly dial menu operation •Y/R-Y/B-Y component signal inputs and outputs via BNC or 12-pin Betacam DUB connectors •S-video (Y/C separate) input/output connectors •7-pin U-matic DUB output capability (option) •Compact and lightweight (5 unit high, 19-inch rack mountable, approx. 25 kg/55 lb 2 oz) •Low power consumption (150W)



PM	More than 48dB (1.0MHz LPF)	More than 48dB (0.5MHz LPF)
Differential gain	Less than 3%	—
Differential phase	Less than 3°	—
K-factor (2T pulse)	Less than 2%	Less than 3%
Y/C delay	Less than 20ns	Less than 20ns
Audio performance		
Frequency response (20dB below peak level)*2	50Hz to 15kHz $^{+1.5}_{-3.0}$ dB	50Hz to 15kHz ±3.0dB
S/N ratio (at peak level*2 weighed CCIR 468-3)	More than 68dB (Dolby NR ON)	More than 62dB (Dolby NR ON)
Distortion (at 1kHz) at operational level (4dBu)	Less than 1.0%	Less than 2.0%
Wow and flutter (DIN45507)	Less than 0.1% rms	Less than 0.1% rms

Supplied accessories: AC power cord
Remote control cable RCC-5G (9-pin)
PSW 4 × 16 screws for rack mounting (4)
Operation manual

Optional accessories: TBC Remote Controller UVR-60P
Component colour corrector BVX-10P
Control panel extention kit BKW-2010
U-matic DUB out kit BKW-2030
Control panel case BK-803
12-pin dubbing cable VDC-C5 (5 m)
Remote control cable RCC-5G/10G/30G (5 m/10 m/30 m)
Rack mount kit RMM-110
S-video cable SYC-2/5 (2 m/5 m)

Specifications

General

Type: Editing recorder
Video recording system: Rotary 4 head helical scan
Luminance: FM recording
Chrominance: FM recording (CTDM recording)
Video Signal system: CCIR monochrome/PAL colour
Operating temperature: 5 to 40°C (41 to 104°F)
Storage temperature: –20 to 60°C (–4 to 140°F)
Power requirements: AC 198 to 264V, 48 to 64Hz
Power consumption: 150W
Humidity: Less than 80% (relative humidity)
Mass: Approx. 25 kg (55 lb 2 oz)
Dimensions: 427 (W) × 237 (H) × 549 (D) mm
($16^{7}/_{8} \times 9^{3}/_{8} \times 21^{5}/_{8}$ inches)
(including projecting parts)
Tape speed: 101.5 mm/s
REC/Playback time: More than 100min with BCT-90MLA
More than 35min with BCT-30MA
Fast Foward/Rewind time:
Less than 3min with BCT-90MLA
Search speed:
SHUTTLE: 19 steps, still to 24 times normal speed, forward and reverse
JOG: Frame by frame, forward and reverse

	Metal Particle Tape	Oxide Tape*1
Video performance		
Bandwidth:		
Luminance (50% modulation)	25Hz to 5.5MHz $^{+0.5}_{-4.0}$ dB	25Hz to 4.0MHz $^{+0.5}_{-6.0}$ dB
Colour difference (50% modulation)	25Hz to 2.0MHz $^{+0.5}_{-3.0}$ dB	25Hz to 1.5MHz $^{+0.5}_{-3.0}$ dB
S/N ratio:		
Luminance	More than 48dB	More than 46dB
Chrominance AM	More than 48dB (1.0MHz LPF)	More than 48dB (0.5MHz LPF)

Signal inputs

REF VIDEO IN (BNC): 1.0Vp-p, 75Ω
VIDEO IN (BNC): Composite video, 1.0Vp-p, 75Ω, sync negative
COMPONENT IN 1 (12-pin male)*3:
Luminance: 1.0Vp-p, 75Ω, sync negative
Colour difference: R-Y: 0.7Vp-p, 75Ω, B-Y: 0.7Vp-p, 75Ω
COMPONENT IN 2 (BNC) (3)*3:
Luminance: 1.0Vp-p, 75Ω, sync negative
Colour difference: R-Y: 0.7Vp-p, 75Ω, B-Y: 0.7Vp-p, 75Ω
S-VIDEO IN: Y: 1.0Vp-p, 75Ω
C: 0.3Vp-p (burst), 75Ω
AUDIO IN CH-1/2 (XLR 3-pin female):
LOW: –60dBu, 3kΩ, balanced
HIGH: +4dBu, 600Ω/10kΩ selectable, balanced
TIME CODE IN (BNC): 0.5V to 18Vp-p, 10kΩ

Signal outputs

VIDEO OUT 1 (BNC): Composite video, 1.0Vp-p, 75Ω, sync negative
VIDEO OUT 2 (BNC): Composite video, 1.0Vp-p, 75Ω, sync negative
VIDEO OUT 3 (BNC): Composite video, 1.0Vp-p, 75Ω, sync negative with or without character insertion
COMPONENT OUT 1 (12-pin male)*3:
Luminance: 1.0Vp-p, 75Ω, sync negative
Colour difference: R-Y: 0.7Vp-p, 75Ω, B-Y: 0.7Vp-p, 75Ω
COMPONENT OUT 2 (BNC) (3)*3:
Luminance: 1.0Vp-p, 75Ω, sync negative
Colour difference: R-Y: 0.7Vp-p, 75Ω, B-Y: 0.7Vp-p, 75Ω
AUDIO LINE OUT (XLR 3-pin male) CH-1/2:
+4dBu, 600Ω, balanced
AUDIO MONITOR OUT (XLR 3-pin male) CH-1/2:
+4dBu, 600Ω, balanced
U-matic DUB OUT (with an optional BKW-2030):
Y: 0.5Vp-p, 75Ω, C: 0.5Vp-p, 75Ω
S-VIDEO OUT: Y: 1.0Vp-p, 75Ω, C: 0.3Vp-p (burst), 75Ω
TIME CODE OUT (BNC): 1.2Vp-p, 75Ω

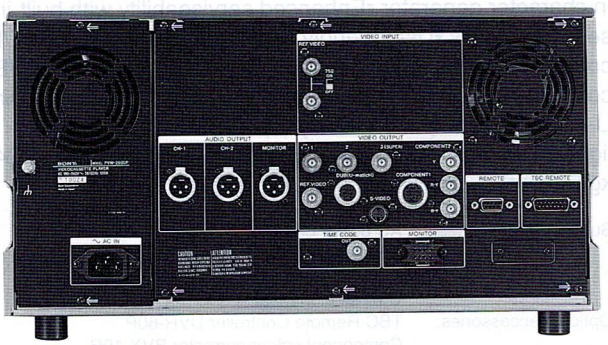
*1 The specifications of "video/audio performance oxide tape" were measured by playing back material on a standard PVW series VTR that had been recorded on a standard BVW series Betacam SP VTR.
*2 Peak level: +8dB above operational level.
*3 Video amplitude 100/0/100/0 colour bars.

PVW-2650P

BETACAM SP 2000PRO

Editing Player with DT

•Superior picture quality, inherent in the Betacam SP format •Dynamic Tracking (DT) provides broadcast quality noiseless playback within –1 to +3 times normal speed •More than 100 minutes of playback time using the L-size cassettes with Metal or Oxide tape •High speed picture search provides recognizable colour pictures at up to 10 times normal speed in forward and reverse (24 times in monochrome) •Two longitudinal audio channels with the Dolby C-type NR (Noise Reduction) system •Direct RS-422A 9-pin interface with other RS-422A equipped Sony machines (ex. Betacam/Betacam SP VTRs, DVCAM VTRs) •Built-in Time Base Corrector with advanced high quality digital dropout compensator •TBC remote control from an optional UVR-60P •Built-in LTC/VITC/User Bits reader •Built-in character generator •Enhanced serviceability with built-in self-diagnostics •User friendly dial menu operation
•Y/R-Y/B-Y component signal outputs via BNC or 12-pin Betacam DUB connectors •S-video (Y/C separate) output connector •7-pin U-matic DUB output capability (option) •Compact and lightweight (5 unit high, 19-inch rack mountable, approx. 25 kg/55 lb 2 oz) •Low power consumption (130W)



Supplied accessories:	AC power cord Remote control cable RCC-5G (9-pin) PSW 4 × 16 screws for rack mounting (4) Operation manual
Optional accessories:	TBC Remote Controller UVR-60P Component colour corrector BVX-10P Control panel extension kit BKW-2010 U-matic DUB out kit BKW-2030 Control panel case BK-803 12-pin dubbing cable VDC-C5 (5 m) Remote control cable RCC-5G/10G/30G (5 m/10 m/30 m) Rack mount kit RMM-110 S-Video cable SYC-2/5 (2 m/5 m)

Specifications

General

Type:	Editing player with DT
Video recording system:	Rotary 4 head helical scan Luminance: FM recording Chrominance: FM recording (CTDM recording)
Video signal system:	CCIR monochrome/PAL colour
Operating temperature:	5 to 40°C (41 to 104°F)
Storage temperature:	–20 to 60°C (–4 to 104°F)
Power requirements:	AC 198 to 264V, 48 to 64Hz
Power consumption:	130W
Humidity:	Less than 80% (relative humidity)
Mass:	Approx. 25 kg (55 lb 2 oz)
Dimensions:	427 (W) × 237 (H) × 549 (D) mm ($16^7/_8 \times 9^3/_8 \times 21^5/_8$ inches) (including projecting parts)
Tape speed:	101.5 mm/s
Playback time:	More than 100min with BCT-90MLA More than 35min with BCT-30MA
Fast Forward/Rewind time:	Less than 3min with BCT-90MLA
Search speed:	
SHUTTLE	19 steps, still to 24 times normal speed, forward and reverse
JOG	Frame by frame, forward and reverse
Dynamic Tracking range:	–1 to +3 times normal speed

	Metal Particle Tape	Oxide Tape*1
Video performance		
Bandwidth:		
Luminance (50% modulation)	25Hz to 5.5MHz $^{+0.5}_{-4.0}$dB	25Hz to 4.0MHz $^{+0.5}_{-6.0}$dB
Colour difference (50% modulation)	25Hz to 2.0MHz $^{+0.5}_{-3.0}$dB	25Hz to 1.5MHz $^{+0.5}_{-3.0}$dB
S/N ratio:		
Luminance	More than 48dB	More than 46dB
Chrominance		
AM	More than 48dB (1.0MHz LPF)	More than 48dB (0.5MHz LPF)
PM	More than 48dB (1.0MHz LPF)	More than 48dB (0.5MHz LPF)
Differential gain	Less than 3%	—
Differential phase	Less than 3°	—
K-factor (2T pulse)	Less than 2%	Less than 3%
Y/C delay	Less than 20ns	Less than 20ns
Audio performance		
Frequency response (20dB below peak level)*2	50Hz to 15kHz $^{+1.5}_{-3.0}$dB	50Hz to 15kHz ±3.0dB
S/N ratio (at peak level*2 weighed CCIR 468-3)	More than 68dB (Dolby NR ON)	More than 62dB (Dolby NR ON)
Distortion (at 1kHz) at operational level (4dBu)	Less than 1.0%	Less than 2.0%
Wow and flutter (DIN45507)	Less than 0.1% rms	Less than 0.1% rms

Signal inputs

REF VIDEO IN (BNC): 1.0Vp-p, 75Ω

Signal outputs

VIDEO OUT 1 (BNC): Composite video, 1.0Vp-p, 75Ω, sync negative
VIDEO OUT 2 (BNC): Composite video, 1.0Vp-p, 75Ω, sync negative
VIDEO OUT 3 (BNC): Composite video, 1.0Vp-p, 75Ω, sync negative with or without character insertion
COMPONENT OUT 1 (12-pin male)*3:
Luminance 1.0Vp-p, 75Ω, sync negative
Colour difference R-Y: 0.7Vp-p, 75Ω, B-Y: 0.7Vp-p, 75Ω
COMPONENT OUT 2 (BNC) (3)*3:
Luminance 1.0Vp-p, 75Ω, sync negative
Colour difference R-Y: 0.7Vp-p, 75Ω, B-Y: 0.7Vp-p, 75Ω
AUDIO LINE OUT (XLR 3-pin male) CH-1/2: +4dBu, 600Ω, balanced
AUDIO MONITOR OUT (XLR 3-pin male) CH-1/2: +4dBu, 600Ω, balanced
U-matic DUB OUT (with an optional BKW-2030): Y: 0.5Vp-p, 75Ω, C: 0.5Vp-p, 75Ω
S-VIDEO OUT: Y: 1.0Vp-p, 75Ω, C: 0.3Vp-p (burst), 75Ω
TIME CODE OUT (BNC): 1.2Vp-p, 75Ω

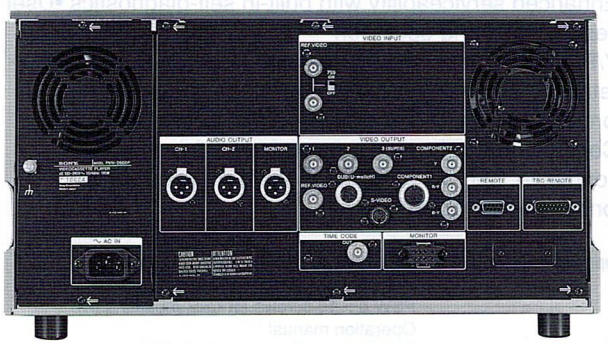
*1 The specifications of "video/audio performance oxide tape" were measured by playing back material on a standard PVW series VTR that had been recorded on a standard BVW series Betacam SP VTR.
*2 Peak level :+8dB above operational level.
*3 Video amplitude 100/0/100/0 colour bars.

PVW-2600P

BETACAM SP 2000PRO

Editing Player

•Superior picture quality, inherent in the Betacam SP format •More than 100 minutes of playback time using the L-size Metal or Oxide cassettes •High speed picture search provides recognizable colour pictures at up to 10 times normal speed in forward and reverse (24 times in monochrome) •Two longitudinal audio channels with the Dolby C-type NR (Noise Reduction) system •RS-422A 9-pin interface with other RS-422A equipped Sony machines (ex. Betacam/Betacam SP VTRs, DVCAM VTRs) •Built-in Time Base Corrector with advanced high quality digital dropout compensator •TBC remote control from an optional UVR-60P •Built-in LTC/VITC/User Bits reader •Built-in character generator •Enhanced serviceability with built-in self-diagnostics •User friendly dial menu operation •Y/R-Y/B-Y component signal outputs via BNC or 12-pin Betacam DUB connectors •S-video (Y/C separate) output connector •7-pin U-matic DUB output capability (option) •Compact and lightweight (5 unit high, 19-inch rack mountable, approx. 24.5 kg/54 lb) •Low power consumption (120W)



Supplied accessories:	AC power cord Remote control cable RCC-5G (9-pin) PSW 4 × 16 screws for rack mounting (4) Operation manual
Optional accessories:	TBC Remote Controller UVR-60P Component colour corrector BVX-10P Control panel extention kit BKW-2010 U-matic DUB out kit BKW-2030 Control panel case BK-803 12-pin dubbing cable VDC-C5 (5 m) Remote control cable RCC-5G/10G/30G (5 m/10 m/30 m) Rack mount kit RMM-110 S-video cable SYC-2/5 (2 m/5 m)

Specifications

General

Type:	Editing player
Video recording system:	Rotary 4 head helical scan Luminance: FM recording Chrominance: FM recording (CTDM recording)
Video Signal system:	CCIR monochrome/PAL colour
Operating temperature:	5 to 40°C (41 to 104°F)
Storage temperature:	–20 to 60°C (–4 to 140°F)
Power requirements:	AC 198 to 264V, 48 to 64Hz
Power consumption:	120W
Humidity:	Less than 80% (relative humidity)
Mass:	Approx. 24.5 kg (54 lb)
Dimensions:	427 (W) × 237 (H) × 549 (D) mm ($16^7/_8 \times 9^3/_8 \times 21^5/_8$ inches) (including projecting parts)
Tape speed:	101.5 mm/s
Playback time:	More than 100min with BCT-90MLA More than 35min with BCT-30MA
Fast Foward/Rewind time:	Less than 3min with BCT-90MLA
Search speed:	
SHUTTLE	19 steps, still to 24 times normal speed, forward and reverse
JOG	Frame by frame, forward and reverse

	Metal Particle Tape	Oxide Tape*1
Video performance		
Bandwidth:		
Luminance (50% modulation)	25Hz to 5.5MHz $^{+0.5}_{-4.0}$ dB	25Hz to 4.0MHz $^{+0.5}_{-6.0}$ dB
Colour difference (50% modulation)	25Hz to 2.0MHz $^{+0.5}_{-3.0}$ dB	25Hz to 1.5MHz $^{+0.5}_{-3.0}$ dB
S/N ratio:		
Luminance	More than 48dB	More than 46dB
Chrominance		
AM	More than 48dB (1.0MHz LPF)	More than 48dB (0.5MHz LPF)
PM	More than 48dB (1.0MHz LPF)	More than 48dB (0.5MHz LPF)
Differential gain	Less than 3%	—
Differential phase	Less than 3°	—
K-factor (2T pulse)	Less than 2%	Less than 3%
Y/C delay	Less than 20ns	Less than 20ns
Audio performance		
Frequency response (20dB below peak level)*2	50Hz to 15kHz $^{+1.5}_{-3.0}$ dB	50Hz to 15kHz ±3.0dB
S/N ratio (at peak level*2 weighed CCIR 468-3)	More than 68dB (Dolby NR ON)	More than 62dB (Dolby NR ON)
Distortion (at 1kHz) at operational level (4dBu)	Less than 1.0%	Less than 2.0%
Wow and flutter (DIN45507)	Less than 0.1% rms	Less than 0.1% rms

Signal inputs

REF VIDEO IN (BNC): 1.0Vp-p, 75Ω

Signal outputs

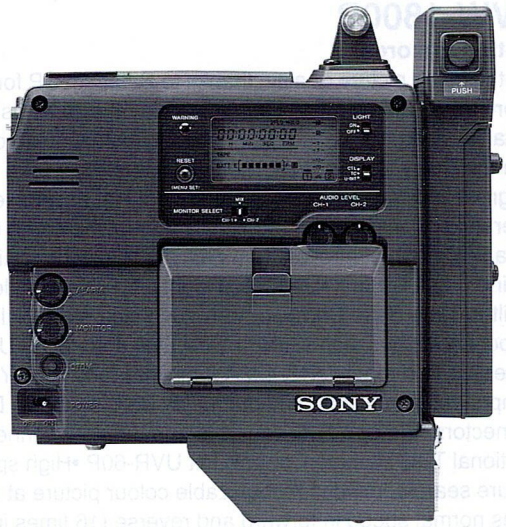
VIDEO OUT 1 (BNC): Composite video, 1.0Vp-p, 75Ω, sync negative
VIDEO OUT 2 (BNC): Composite video, 1.0Vp-p, 75Ω, sync negative
VIDEO OUT 3 (BNC): Composite video, 1.0Vp-p, 75Ω, sync negative with or without character insertion
COMPONENT OUT 1 (12-pin male)*3:
Luminance 1.0Vp-p, 75Ω, sync negative
Colour difference R-Y: 0.7Vp-p, 75Ω, B-Y: 0.7Vp-p, 75Ω
COMPONENT OUT 2 (BNC) (3)*3:
Luminance 1.0Vp-p, 75Ω, sync negative
Colour difference R-Y: 0.7Vp-p, 75Ω, B-Y: 0.7Vp-p, 75Ω
AUDIO LINE OUT (XLR 3-pin male) CH-1/2: +4dBu, 600Ω, balanced
AUDIO MONITOR OUT (XLR 3-pin male) CH-1/2: +4dBu, 600Ω, balanced
U-matic DUB OUT (with an optional BKW-2030): Y: 0.5Vp-p, 75Ω, C: 0.5Vp-p, 75Ω
S-VIDEO OUT: Y: 1.0Vp-p, 75Ω, C: 0.3Vp-p (burst), 75Ω
TIME CODE OUT (BNC): 1.2Vp-p, 75Ω

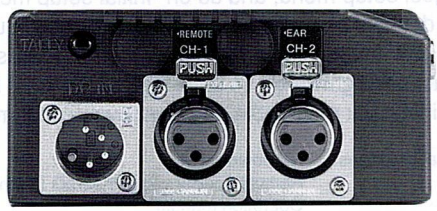
*1 The specifications of "video/audio performance oxide tape" were measured by playing back material on a standard PVW series VTR that had been recorded on a standard BVW series Betacam SP VTR.
*2 Peak level: +8dB above operational level.
*3 Video amplitude 100/0/100/0 colour bars.

PVV-3P

Dockable Recorder

•Superior picture quality, inherit in the Betacam SP format •Compact and light-weight design •Low power consumption •Directly connected with DXC-D30P/D30WSP/637P/327BP via the Pro 50-pin connector •Supplied with 20-pin connector for full colour playback in field through the optional VA-300P and VA-500P •More than 35 minutes of recording time using the S-size cassette (Metal particle tape only) •Two longitudinal audio channels with the Dolby C-type Noise Reduction system •Luminance or CTDM viewfinder •Full range of control provided (Fast forward/ Rewind/Play/Stop/Eject) •Record review function •Built-in LTC/VITC/User Bits generator and LTC reader with exteranl time code lock capability •Frame accurate back space editing without time code discontinuity at the transition points •8-digit LCD display •Real time and date recording function •Built-in loud speaker •Digital hours meter •Built-in microphone external power supply (+48V, CH-1/2) •Built-in self diagnostics with character display on TV monitor •Enhanced serviceability





Supplied accessories:	Shoulder belt
	Screws M4 × 12 (2)
	M4 × 6 (2)
	Operation manual
	Handle
	Lithium battery(CR2025)
Optional accessories:	NiCd Rechargeable Battery NP-1B, BA-90A
	Battery case (for BP-90A) DC-500
	Battery case (for NP-1B) DC-520
	Battery charger BC-1WDCE
	Battery charger BC-410CE
	Camera adaptor CMA-8ACE
	Camera adaptor (for BVP series) CA-514
	Power cable (for CMA-8ACE) CCQX-3
	Playback adaptor VA-300P

Specifications

General

Type:	Dockable recorder
Operating temperature:	0 to 40˚C (32 to 104˚F)
Storage temperature:	-20 to 60˚C (-4 to 140˚F)
Power requirements:	DC 12V $^{+5.0}_{-1.0}$ V
Power consumption:	10W
Humidity:	Less than 85% (relative humidity)
Mass:	Approx. 2.8 kg (6 lb 2 oz)
Tape speed:	101.5 mm/s
REC/Playback time:	More than 35min with BCT-30MA/UVWT-30MA
Fast Forward time:	Less than 7.5min with BCT-30MA/UVWT-30MA
Rewind time:	Less than 5.5min with BCT-30MA/UVWT-30MA
Continuous operating time:	Approx. 60min with NP-1B (PVV-3P and DXC-637P)

Video performance (Metal Particle Tape only)*1

Bandwidth:	Luminance(50% modulation): 25Hz to 5.5MHz $^{+0.5}_{-4.0}$ dB
	Colour difference (50% modulation): 25Hz to 2.0MHz $^{+0.5}_{-3.0}$ dB
S/N ratio:	Luminance(Component IN/OUT): More than 48dB
	Colour difference (AM/PM): More than 48dB
K-pulse(2T):	Less than 2%
Y/C delay:	Less than 20ns

Audio performance (Metal Particle Tape only)*1

Frequency response:	50Hz to 15kHz $^{+1.5}_{-3.0}$ dB
S/N ratio (at 3% distortion level):	More than 62dB (CCIR 468-3, at peak level*3)
Distortion T.H.D. (at 1kHz reference level):	Less than 1.5%
Wow and flutter (DIN weighted):	Less than 0.15%rms

Signal inputs/outputs

VIDEO (from the camera head, Pro 50-pin)*2:	Luminance:1.0Vp-p, 1kΩ
	Colour difference: B-Y/R-Y; 0.7Vp-p, 1kΩ
GEN LOCK VIDEO IN (BNC):	1.0Vp-p, 75Ω
AUDIO IN CH-1/2 (XLR 3-pin female):	-60dBu/+4dBu selectable, high impedance, balanced
TIME CODE IN (BNC):	0.5V to 18Vp-p, 10kΩ
ENCODED VIDEO OUT (Camera Video Out, BNC):	1.0Vp-p, 75Ω
TIME CODE OUT(BNC):	1.0Vp-p, 75Ω

Others

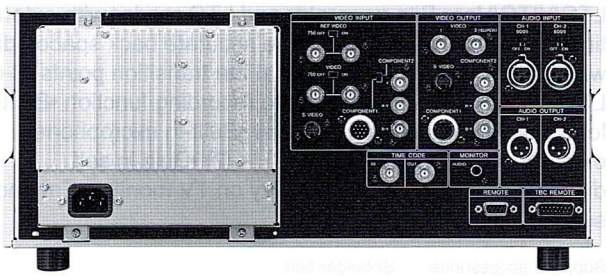
EARPHONE OUT:	Mini jack
PLAYBACK ADAPTOR:	20-pin
REMOTE:	Stereo Mini Jack

*1 The specifications of "video/audio performace" were measured by playing back material on a standard PVW series that had been recorded on a PVV-3P.
*2 Video amplitude 100/0/100/0 colour bars

UVW-1800P

Editing Recorder

•Outstanding picture quality, thanks to Betacam SP format •More than 100 minutes of recording/playback time using L-size metal Betacam SP cassettes •Two longitudinal audio channel with the Dolby C-type Noise Reduction system shown in unique bargraph indicators •Frame accurate editing: assemble and insert (video, audio CH-1, audio CH-2 and time code) editing capability when controlled from optional RS-422A equipped editing controller unit •Dedicated longitudinal time code track •Built-in Time Base Corrector with advanced high quality digital dropout compensation •Built-in EBU time code (LTC/User-bit) generator and reader •RS-422A 9-pin interface •Y/R-Y/B-Y component signal input and output via BNC or 12-pin DUB connectors •S-video (Y/C separate) input/output connectors •Optional TBC Remote Control Unit UVR-60P •High speed picture search provides recognizable colour picture at up to 5 times normal speed in forward and reverse (16 times in monochrome) •Built-in character generator to monitor display information such as VTR status, time code, self-diagnostic messages, setup menu, and so on •Initial setup menu to preset various detailed operational parameters •Digital hours meter •Built-in self diagnostics with detailed warning messages •Compact and lightweight (4 units high, approx. 19 kg/41 lb 14 oz), 19-inch rack mountable and low power consumption (85W)



Supplied accessories:	AC power cord Remote control cable RCC-5G (9-pin) Operation manual
Optional accessories:	TBC Remote controller UVR-60P Component colour corrector BVX-10P Remote control cable RCC-5G/10G/30G (5 m/10 m/30 m) 12-pin dubbing cable VDC-C5 (5 m) S-video cable SYC-2/5 (2 m/5 m) Remote control unit DSRM-10 Rack mount unit RMM-130

Specifications

General

Type:	Editing recorder
Video recording system:	Rotary 4 head helical scan Luminance: FM recording Chrominance: FM recording (CTDM recording)
Video signal system:	CCIR monochrome/PAL colour
Power requirements:	AC 198 to 264V, 48 to 64Hz
Power consumption:	85W
Operating temperature:	5 to 40°C (41 to 104°F)
Storage temperature:	–20 to 60°C (–4 to 140°F)
Humidity:	Less than 80% (relative humidity)
Dimensions:	427 (W) × 193 (H) × 474 (D) mm ($16^{7}/_{8} \times 7^{5}/_{8} \times 18^{3}/_{4}$ inches)
Mass:	Approx. 19 kg (41 lb 14 oz)
Tape speed:	101.5 mm/s
Recording/playback time:	More than 100min with UVWT-90MLA More than 35min with UVWT-30MA
Fast forward time:	Less than 3min with UVWT-90MLA
Rewind time:	Less than 3min with UVWT-90MLA
Search speed (with optional DSRM-10)*1:	Shuttle: 15 steps, still to 16 times normal speed, forward and reverse Jog: Frame by frame to ×2, forward and reverse

Video performance (Metal particle tape)

Bandwidth (50% modulation):	Luminance: 25Hz to 5.0MHz $^{+1.0}_{-4.0}$ dB Colour difference: 25Hz to 1.5MHz $^{+1.0}_{-4.0}$ dB
S/N ratio:	Luminance (Component in/out): More than 46dB Chrominance (1.0MHz LPF): AM; More than 48dB PM; More than 48dB
K-factor (2T pulse):	Less than 3%
Y/C delay:	Less than 30ns

Audio performance (Metal particle tape)

Frequency responce:	50Hz to 15kHz $^{+2.0}_{-3.0}$ dB (20dB below peak level)*2
S/N ratio:	More than 66dB (at peak level weighed CCIR468-3)*2
Distortion:	Less than 1.5% (at 1kHz/at operational level 4dBu)
Wow and flutter:	Less than 0.15% rms (DIN 45507)

Signal inputs

REF VIDEO IN:	BNC, 1.0Vp-p, 75Ω
VIDEO IN:	BNC, Composite video, 1.0Vp-p, 75Ω, sync negative
COMPONENT IN 1:	12-pin male*3, Luminance: 1.0Vp-p, 75Ω, sync negative Colour difference: R-Y; 0.7Vp-p, 75Ω B-Y; 0.7Vp-p, 75Ω
COMPONENT IN 2:	BNC (3)*3, Luminance: 1.0Vp-p, 75Ω, sync negative Colour difference: R-Y; 0.7Vp-p, 75Ω B-Y; 0.7Vp-p, 75Ω
S-VIDEO IN:	Mini DIN 4-pin, Y: 1.0Vp-p, 75Ω C: 0.3Vp-p (burst), 75Ω
AUDIO IN CH-1/2:	XLR 3-pin female, 4dBu, 600Ω/10kΩ selectable balanced
TIME CODE IN:	BNC, 0.5V to 18Vp-p, 600Ω

Signal outputs

VIDEO OUT 1:	BNC, Composite video, 1.0Vp-p, 75Ω, sync negative
VIDEO OUT 2:	BNC, Composite video, 1.0Vp-p, 75Ω, sync negative, with or without character insertion
COMPONENT OUT 1:	12-pin female*3, Luminance: 1.0Vp-p, 75Ω, sync negative Colour difference: R-Y; 0.7Vp-p, 75Ω B-Y; 0.7Vp-p, 75Ω
COMPONENT OUT 2:	BNC (3)*3, Luminance: 1.0Vp-p, 75Ω, sync negative Colour difference: R-Y; 0.7Vp-p, 75Ω B-Y; 0.7Vp-p, 75Ω
AUDIO LINE OUT CH-1/2:	XLR 3-pin, male, 4dBu, 600Ω, balanced
AUDIO MONITOR OUT CH-1/2:	Phono, –6dBu
S-VIDEO OUT:	Mini DIN 4-pin, Y: 1.0Vp-p, 75Ω C: 0.3Vp-p (burst), 75Ω
TIME CODE OUT:	BNC, 2.2Vp-p, 600Ω

Others

REMOTE:	RS-422A 9-pin multi connector
TBC REMOTE:	D-sub 15-pin
CONTROL-S (SIRCS):	Stereo mini jack
HEADPHONES:	JM-60 headphone stereo jack

Processor adjustment range (with optional UVR-60P)

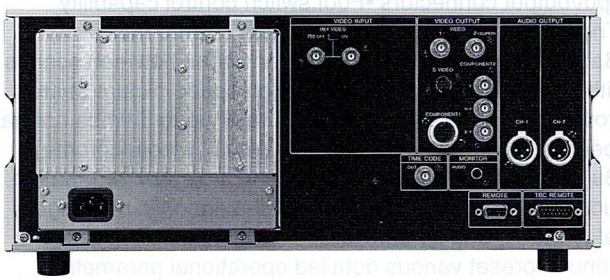
Video level:	±3dB
Chroma level:	±3dB
Black level:	0 to 100mV
System SC phase:	360°p-p*4
System sync phase:	–1 to 3μs*5
Y/C delay:	±100ns

*1 Without DSRM-10 attached, search speed is 16 times forward and reverse with "REW/FFWD" button continuously depressed.
*2 Peak level: +8dB above operational level
*3 Video amplitude 100/0/100/0 colour bars
*4 With or without UVR-60P attached
*5 Without UVR-60P attached: ±300ns

UVW-1600P

Editing Player

•Outstanding picture quality, thanks to Betacam SP format •More than 100 minutes of playback time using L-size metal Betacam SP cassettes •Two longitudinal audio channel with the Dolby C-type Noise Reduction system shown in unique bargraph indicators •Dedicated longitudinal time code track •Built-in Time Base Corrector with advanced high quality digital dropout compensation •Built-in EBU time code (LTC/User-bit) reader •RS-422A 9-pin interface •Y/R-Y/B-Y component signal output via BNC or 12-pin DUB connector •S-video (Y/C separate) output connector •Optional TBC Remote Control Unit UVR-60P •High speed picture search provides recognizable colour picture at up to 5 times normal speed in forward and reverse (16 times in monochrome) •Built-in character generator to monitor display information such as VTR status, time code, self-diagnostic messages, setup menu, and so on •Initial setup menu to preset various detailed operational parameters •Digital hours meter •Built-in self diagnostics with detailed warning messages •Compact and lightweight (4 units high, approx. 18 kg/39 lb 10 oz), 19-inch rack mountable and low power consumption (65W)



Supplied accessories:	AC power cord
	Remote control cable RCC-5G (9-pin)
	Operation manual
Optional accessories:	TBC Remote controller UVR-60P
	Component colour corrector BVX-10P
	Remote control cable RCC-5G/10G/30G (5 m/10 m/30 m)
	12-pin dubbing cable VDC-C5 (5 m)
	S-video cable SYC-2/5 (2 m/5 m)
	Remote control unit DSRM-10
	Rack mount unit RMM-130

Specifications

General

Type:	Editing player
Video recording system:	Rotary 4 head helical scan
	Luminance: FM recording
	Chrominance: FM recording (CTDM recording)
Video signal system:	CCIR monochrome/PAL colour
Power requirements:	AC 198 to 264V, 48 to 64Hz
Power consumption:	65W
Operating temperature:	5 to 40°C (41 to 104°F)
Storage temperature:	–20 to 60°C (–4 to 140°F)
Humidity:	Less than 80% (relative humidity)
Dimensions:	427 (W) × 193 (H) × 474 (D) mm
	($16^7/_8 \times 7^5/_8 \times 18^3/_4$ inches)
Mass:	Approx. 18 kg (39 lb 10 oz)
Tape speed:	101.5 mm/s
Playback time:	More than 100min with UVWT-90MLA
	More than 35min with UVWT-30MA
Fast forward time:	Less than 3min with UVWT-90MLA
Rewind time:	Less than 3min with UVWT-90MLA
Search speed (with optional DSRM-10)*1:	
	Shuttle: 15 steps, still to 16 times normal speed, forward and reverse
	Jog: Frame by frame to ×2, forward and reverse

Video performance (Metal particle tape)

Bandwidth (50% modulation):	
	Luminance: 25Hz to 5.0MHz $^{+1.0}_{-4.0}$ dB
	Colour difference: 25Hz to 1.5MHz $^{+1.0}_{-4.0}$ dB
S/N ratio:	Luminance (Component out): More than 46dB
	Chrominance (1.0MHz LPF):
	AM; More than 48dB
	PM; More than 48dB
K-factor (2T pulse):	Less than 3%
Y/C delay:	Less than 30ns

Audio performance (Metal particle tape)

Frequency responce:	50Hz to 15kHz $^{+2.0}_{-3.0}$dB
	(20dB below peak level)*2
S/N ratio:	More than 66dB
	(at peak level weighed CCIR468-3)*2
Distortion:	Less than 1.5%
	(at 1kHz/at operational level 4dBu)
Wow and flutter:	Less than 0.15% rms (DIN45507)

Signal inputs

REF VIDEO IN:	BNC, 1.0Vp-p, 75Ω

Signal outputs

VIDEO OUT 1:	BNC, Composite video, 1.0Vp-p, 75Ω, sync negative
VIDEO OUT 2:	BNC, Composite video, 1.0Vp-p, 75Ω, sync negative with or without character insertion
COMPONENT OUT 1:	12-pin female*3,
	Luminance: 1.0Vp-p, 75Ω, sync negative
	Colour difference:
	R-Y; 0.7Vp-p, 75Ω
	B-Y; 0.7Vp-p, 75Ω
COMPONENT OUT 2:	BNC (3)*3,
	Luminance: 1.0Vp-p, 75Ω, sync negative
	Colour difference:
	R-Y; 0.7Vp-p, 75Ω
	B-Y; 0.7Vp-p, 75Ω
AUDIO LINE OUT CH-1/2:	XLR 3-pin, male, 4dBu, 600Ω, balanced
AUDIO MONITOR OUT CH-1/2:	
	Phono, –6dBu
S-VIDEO OUT:	Mini DIN 4-pin,
	Y: 1.0Vp-p, 75Ω
	C: 0.3Vp-p (burst), 75Ω
TIME CODE OUT:	BNC, 2.2Vp-p, 600Ω

Others

REMOTE:	RS-422A 9-pin multi connector
TBC REMOTE:	D-sub 15-pin
CONTROL-S (SIRCS):	Stereo mini jack
HEADPHONES:	JM-60 headphone stereo jack

Processor adjustment range (with optional UVR-60P)

Video level:	±3dB
Chroma level:	±3dB
Black level:	0 to 100mV
System SC phase:	360°p-p*4
System sync phase:	–1 to 3µs*5
Y/C delay:	±100ns

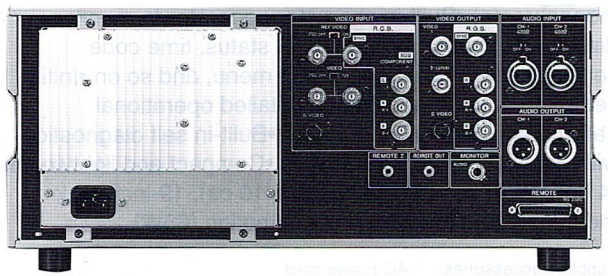
*1 Without DSRM-10 attached, search speed is 16 times forward and reverse with "REW/FFWD" button continuously depressed.
*2 Peak level: + 8dB above operational level
*3 Video amplitude 100/0/100/0 colour bars
*4 With or without UVR-60P attached
*5 Without UVR-60P attached: ±300ns

UVW-1400AP

Recorder

•Outstanding picture quality, thanks to Betacam SP format •More than 100 minutes of recording/playback time using L-size metal Betacam SP cassettes •Two longitudinal audio channel with the Dolby C-type Noise Reduction system shown in unique bargraph indicators •Dedicated longitudinal time code track •Built-in Time Base Stabilizer with advanced high quality digital dropout compensation •Built-in EBU time code (LTC/User-bit) generator and reader •25-pin remote control interface complied with RS-232C interface for external computer operation •Y/R-Y/B-Y component signal inputs and outputs via BNC connectors are switchable to RGB input/output connector •S-video (Y/C separate) input/output connectors •Foot switch control capability •Trigger remote out for video printers (stereo mini jack) •Back space editing for smooth transitions between scenes with optional remote controller •High speed picture search provides recognizable colour picture at up to 5 times normal speed in forward and reverse (16 times in monochrome) •Built-in character generator to monitor display information such as VTR status, time code, self-diagnostic messages, setup menu, and so on •Auto repeat function •Initial setup menu to preset various detailed operational parameters •Digital hours meter •Built-in self diagnostics with detailed warning messages •Compact and lightweight (4 units high, approx. 19 kg/41 lb 14 oz), 19-inch rack mountable and low power consumption (85W)

Supplied accessories:	AC power cord Operation manual RS-232C Protocol manual
Optional accessories:	Component colour corrector BVX-10P S-video cable SYC-2/5 (2 m/5 m) Remote control unit SVRM-100A Foot switch FS-20 Rack mount unit RMM-130



Specifications

General

Type:	Recorder
Video recording system:	Rotary 4 head helical scan Luminance: FM recording Chrominance: FM recording (CTDM recording)
Video signal system:	CCIR monochrome/PAL colour
Power requirements:	AC 198 to 264V, 48 to 64Hz
Power consumption:	85W
Operating temperature:	5 to 40°C (41 to 104°F)
Storage temperature:	–20 to 60°C (–4 to 140°F)
Humidity:	Less than 80% (relative humidity)
Dimensions:	427 (W) × 193 (H) × 474 (D) mm ($16^{7}/_{8} \times 7^{5}/_{8} \times 18^{3}/_{4}$ inches)
Mass:	Approx. 19 kg (41 lb 14 oz)
Tape speed:	101.5 mm/s
Recording/playback time:	More than 100min with UVWT-90MLA More than 35min with UVWT-30MA
Fast forward time:	Less than 3min with UVWT-90MLA
Rewind time:	Less than 3min with UVWT-90MLA
Search speed (with optional SVRM-100A)*1:	Shuttle: 15 steps, still to 16 times normal speed, forward and reverse Jog: Frame by frame to ×2, forward and reverse

Video performance (Metal particle tape)

Bandwidth (50% modulation):	Luminance: 25Hz to 5.0MHz $^{+1.0}_{-4.0}$ dB Colour difference: 25Hz to 1.5MHz $^{+1.0}_{-4.0}$ dB
S/N ratio:	Luminance (Component in/out): More than 46dB Chrominance (1.0MHz LPF): AM; More than 48dB PM; More than 48dB
K-factor (2T pulse):	Less than 3%
Y/C delay:	Less than 30ns

Audio performance (Metal particle tape)

Frequency responce:	50Hz to 15kHz $^{+2.0}_{-3.0}$ dB (20dB below peak level)*2
S/N ratio:	More than 66dB (at peak level weighed CCIR468-3)*2
Distortion:	Less than 1.5% (at 1kHz/at operational level 4dBu)
Wow and flutter:	Less than 0.15% rms (DIN 45507)

Signal inputs

REF VIDEO:	BNC (2) Composite video: 1.0Vp-p, 75Ω, sync negative Composite sync: 0.2 to 5.0Vp-p, 75Ω, sync negative (with component I/O)
VIDEO IN:	BNC, Composite video, 1.0Vp-p, 75Ω, sync negative
RGB/COMPONENT IN:	BNC (3)*3, Y/Sync on G:1.0Vp-p, 75Ω, sync negative G: 0.7Vp-p, 75Ω R-Y/R: 0.7Vp-p, 75Ω B-Y/B: 0.7Vp-p, 75Ω
S-VIDEO IN:	Mini DIN 4-pin, Y: 1.0Vp-p, 75Ω C: 0.3Vp-p (burst), 75Ω
AUDIO IN CH-1/2:	XLR 3-pin female, 4dBu, 600Ω/10kΩ selectable balanced

Signal outputs

VIDEO OUT 1:	BNC, Composite video, 1.0Vp-p, 75Ω, sync negative
VIDEO OUT 2:	BNC, Composite video, 1.0Vp-p, 75Ω, sync negative with or without character insertion
RGB/COMPONENT OUT:	BNC (3)*3, Y/Sync on G: 1.0Vp-p, 75Ω, sync negative G: 0.7Vp-p, 75Ω R-Y/R: 0.7Vp-p, 75Ω B-Y/B: 0.7Vp-p, 75Ω
RGB SYNC OUT:	2Vp-p, 75Ω, sync negative
S-VIDEO OUT:	Mini DIN 4-pin, Y: 1.0Vp-p, 75Ω C: 0.3Vp-p (burst), 75Ω
AUDIO LINE OUT CH-1/2:	XLR 3-pin, male, 4dBu, 600Ω, balanced
AUDIO MONITOR OUT CH-1/2:	Phono, –6dBu

Others

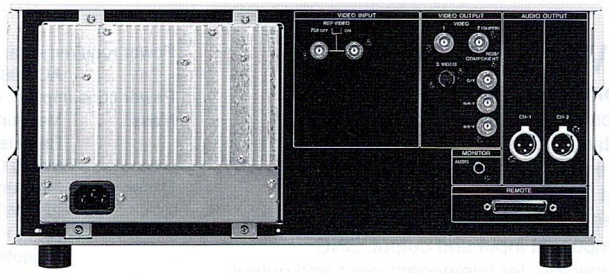
REMOTE:	RS-232C 25-pin multi connector
REMOTE 2:	Stereo mini jack (for foot switch)
REMOTE OUT:	Stereo mini jack (for trigger to video printer)
CONTROL-S (SIRCS):	Stereo mini jack
HEADPHONES:	JM-60 headphone stereo jack

*1 Without SVRM-100A attached, search speed is 16 times forward and reverse with "REW/FFWD" button continuously depressed.
*2 Peak level: +8dB above operational level
*3 Video amplitude 100/0/100/0 colour bars

UVW-1200P

Player

•Outstanding picture quality, thanks to Betacam SP format •More than 100 minutes of playback time using L-size metal Betacam SP cassettes •Two longitudinal audio channel with the Dolby C-type Noise Reduction system •Dedicated longitudinal time code track •Built-in Time Base Stabilizer with advanced high quality digital dropout compensation •Built-in EBU time code (LTC/User-bit) reader •25-pin remote control interface complied with RS-232C interface for external computer operation •Y/R-Y/B-Y component signal outputs via BNC connectors are switchable to RGB output connector •S-video (Y/C separate) output connector •High speed picture search provides recognizable colour picture at up to 5 times normal speed in forward and reverse (16 times in monochrome) •Built-in character generator to monitor display information such as VTR status, time code, self-diagnostic messages, setup menu, and so on •Auto repeat function •Initial setup menu to preset various detailed operational parameters •Digital hours meter •Built-in self diagnostics with detailed warning messages •Compact and lightweight (4 units high, approx. 17.5 kg/38 lb 9 oz), 19-inch rack mountable and low power consumption (63W)



Supplied accessories:	AC power cord
	Operation manual
	RS-232C Protocol manual
Optional accessories:	Component colour corrector BVX-10P
	S-video cable SYC-2/5 (2 m/5 m)
	Remote control unit DSRM-10
	Rack mount unit RMM-130

Specifications

General

Type:	Player
Video recording system:	Rotary 4 head helical scan
	Luminance: FM recording
	Chrominance: FM recording (CTDM recording)
Video signal system:	CCIR monochrome/PAL colour
Power requirements:	AC 198 to 264V, 48 to 64Hz
Power consumption:	63W
Operating temperature:	5 to 40°C (41 to 104°F)
Storage temperature:	–20 to 60°C (–4 to 140°F)
Humidity:	Less than 80% (relative humidity)
Dimensions:	427 (W) × 193 (H) × 474 (D) mm
	($16\frac{7}{8} \times 7\frac{5}{8} \times 18\frac{3}{4}$ inches)
Mass:	Approx. 17.5 kg (38 lb 9 oz)
Tape speed:	101.5 mm/s
Playback time:	More than 100min with UVWT-90MLA
	More than 35min with UVWT-30MA
Fast forward time:	Less than 3min with UVWT-90MLA
Rewind time:	Less than 3min with UVWT-90MLA
Search speed (with optional DSRM-10)*1:	
	Shuttle: 15 steps, still to 16 times normal speed, forward and reverse
	Jog: Frame by frame to ×2, forward and reverse

Video performance (Metal particle tape)

Bandwidth (50% modulation):	
	Luminance: 25Hz to 5.0MHz $^{+1.0}_{-4.0}$ dB
	Colour difference: 25Hz to 1.5MHz $^{+1.0}_{-4.0}$ dB
S/N ratio:	Luminance (Component out): More than 46dB
	Chrominance (1.0MHz LPF):
	AM; More than 48dB
	PM; More than 48dB
K-factor (2T pulse):	Less than 3%
Y/C delay:	Less than 30ns

Audio performance (Metal particle tape)

Frequency responce:	50Hz to 15kHz $^{+2.0}_{-3.0}$ dB
	(20dB below peak level)*2
S/N ratio:	More than 66dB
	(at peak level weighed CCIR468-3)*2
Distortion:	Less than 1.5%
	(at 1kHz/at operational level 4dBu)
Wow and flutter:	Less than 0.15% rms (DIN 45507)

Signal inputs

REF VIDEO IN:	BNC, 1.0Vp-p, 75Ω

Signal outputs

VIDEO OUT 1:	BNC, Composite video, 1.0Vp-p, 75Ω, sync negative
VIDEO OUT 2:	BNC, Composite video, 1.0Vp-p, 75Ω, sync negative with or without character insertion
RGB/COMPONENT OUT:	BNC (3)*3,
	Y/Sync on G: 1.0Vp-p, 75Ω, sync negative
	R-Y/R: 0.7Vp-p, 75Ω
	B-Y/B: 0.7Vp-p, 75Ω
AUDIO LINE OUT CH-1/2:	XLR 3-pin, male, 4dBu, 600Ω, balanced
AUDIO MONITOR OUT CH-1/2:	
	Phono, –6dBu
S-VIDEO OUT:	Mini DIN 4-pin,
	Y: 1.0Vp-p, 75Ω
	C: 0.3Vp-p (burst), 75Ω

Others

REMOTE:	RS-232C 25-pin multi connector
CONTROL-S (SIRCS):	Stereo mini jack
HEADPHONES:	JM-60 headphone stereo jack

*1 Without DSRM-10 attached, search speed is 16 times forward and reverse with "REW/FFWD" button continuously depressed.
*2 Peak level: +8dB above operational level
*3 Video amplitude 100/0/100/0 colour bars

UVR-60P

TBC Remote Controller

•Designed to remotely control the TBC for the PVW and UVW series VTRs
•19-inch rack mountable: Can be installed individually with the supplied blank panel or with another UVR-60P

Power requirements:
DC 12 V, 9 V (supplied from VTR)
Power consumption:
840 mW
Mass: 1.3 kg (2 lb 13 oz)
Dimension: 215 (W) × 44 (H) × 101 (D) mm
(8 1/2 × 1 3/4 × 4 inches)

Supplied accessories:
Remote control cable (5 m)
Rack mount bracket
Blank panel
Screw
Operation manual

BVX-10P

Component Colour Corrector

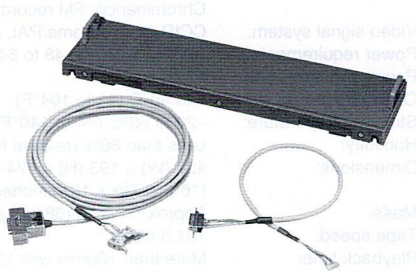
•Component signal colour corrector for Betacam VTR
•Preset/manual control of Gain, Black level and Gamma on R, G, B signals
•Easy connection—12-pin multi cables for component input and output, BNC connectors for component input and output (Y, B-Y, R-Y)
•Remote controller supplied (BVR-58)
•19-inch rack mountable

Power requirements:
AC 198 to 264 V, 50/60 Hz
Power consumption: 40 W
Mass: Main unit: 6.1 kg (13 lb 7 oz)
Remote controller:
0.9 kg (1 lb 15 oz)
Dimensions: Main unit:
424 (W) × 44 (H) × 410 (D) mm
(16 3/4 × 1 3/4 × 16 1/4 inches)
Remote controller:
212 (W) × 44 (H) × 110 (D) mm
(8 3/4 × 1 3/4 × 4 3/8 inches)
Supplied accessories:
Rack mount units (2)
Remote control cable
(5 m, 25-pin)
Operation and maintenance manual

BKW-2010

Control Panel Extension Kit

•Designed to remotely control the PVW-2800P/2650P/2600P
•Composition—Blank panel (1), 15-pin remote control cable (1), Cable for the internal circuits (1)

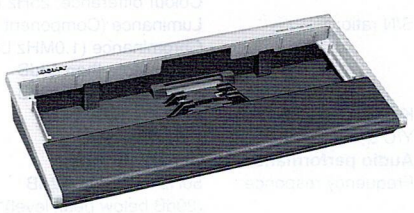


BK-803

Control Panel Case

•Mounts the control panel which is removed from PVW-2800P/2650P/2600P
•Used with BKW-2010

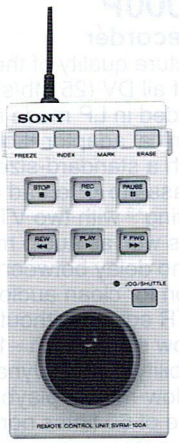
Dimension: 448 (W) × 56.5 (H) × 218 (D) mm
(17 3/4 × 2 1/4 × 8 5/8 inches)



SVRM-100A

Remote Control Unit

•Designed to remotely control the UVW-1400AP
•Provides wired remote control operation for STOP/REC/PAUSE/REW/PLAY/FFWD
•JOG/SHUTTLE operation •Enables ±16 times normal speed in search operation



Specifications

Power requirements:	DC 5 V (supplied from the VTR)
Power consumption:	40 mW
Remote control:	Stereo mini plug
Control signal:	Control S
Dimensions:	90 (W) × 39 (H) × 182 (D) mm ($3^5/_8 \times 1^9/_{16} \times 7^1/_4$ inches)
Mass:	250 g (8.8 lb)

DSRM-10

Remote Control Unit

•Designed to remotely control the UVW-1800P/1600P/1200P
•Provides wired remote control operation for STOP/REC/PAUSE/REW/PLAY/FFWD
•JOG/SHUTTLE operation
•Enables ±16 times normal speed in search operation

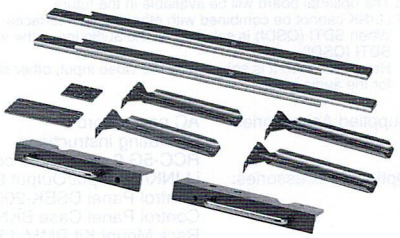
Specifications

Power requirements:	DC 5 V (supplied from the connected VTR)
Power consumption:	50 mW
Remote control:	Stereo mini-plug (with attached cable, length 3 m (10ft))
Dimensions:	90 (W) × 46 (H) × 182 (D) mm ($3^5/_8 \times 1^{13}/_{16} \times 7^1/_4$ inches)
Mass:	Approx. 360 g (12 oz)
Supplied accessory:	Operating instructions

RMM-110

Rack Mount Kit

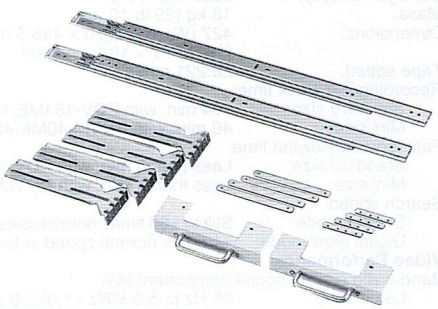
•Designed for use in mounting PVW-2800P/2650P/2600P into 19-inch rack



RMM-130

Rack Mount Kit

•Designed for use in mounting UVW1800P/1600P/1400AP/1200P into 19-inch rack



DSR-2000P

Editing Recorder

•Superb picture quality of the DVCAM format •Playback capability of all DV (25 Mb/s) recorded tapes including DV tapes recorded in LP mode and DVCPRO tapes*1 without any mechanical adaptor •Long recording time: up to 184 minutes with a standard-size cassette and 40 minutes with a mini-size cassette •Preread editing capability*2 to perform A/B roll editing*3 with two VTRs and sound-on-sound capability as well as audio mix/swap and over-dubbing of audio with no delay between video and audio •Audio cross-fade function for clean audio transitions at editing points •VTR-to-VTR editing without external controllers •Wide range of digital slow speed from –1 to +1 times normal speed •Jog audio capability •DMC (Dynamic Motion Control) provides noiseless slow-motion playback •High-speed picture search over a range of 60 times normal speed, in both forward and reverse •Versatile digital interfaces: SDI, SDTI (QSDI™)*4, i.LINK™ (DV In/Out)*5, SDTI-CP (MPEG Out)*6 and AES/EBU digital audio •Extensive analogue interfaces: composite, component, S-Video and XLR audio •RS-422A remote control interface •Frame accurate editing capability •ClipLink™ operation •Full tape dubbing with ClipLink Log Data via SDTI (QSDI) and RS-422A interfaces •16:9 aspect ID signal recording •Process control for highly stable video signals •Built-in EBU time code and VITC generator/reader •Channel condition monitoring function •Built-in signal generator •Audio level control in both recording and playback modes •Dial menu operation •Key Inhibit and Rec Inhibit functions to prevent accidental operation •Flexible input selection between video and audio*7 •Universal powering system from AC 100 V to 240 V •Triple-size cassette compartment to ensure compatibility with DV (25 Mb/s) recorded tapes of all sizes and types •DSBK-200 Control Panel for remote operation from a distance of up to 10 metres (approx. 33 ft.)

*1 Not compatible with the SDTI (QSDI) and i.LINK interfaces.
*2 Not available through the SDTI (QSDI) and i.LINK interfaces.
*3 MIX and WIPE only
*4 The SDTI (Serial Data Transport Interface) is defined as SMPTE 305M.
The SDTI (QSDI) is the DV compressed signal interface which is defined as SMPTE 322M.
*5 i.LINK stands for IEEE1394-1995 standards and their revisions.
i is the logo for products that implement i.LINK.
The optional DSBK-190 i.LINK/DV Input/Output Board is required.
*6 The optional board will be available in the future.
*7 i.LINK cannot be combined with other signal interfaces.
When SDTI (QSDI) is selected as the audio input, the video signal is assumed to be SDTI (QSDI).
However, when it is selected as the video input, other signal interfaces can be selected for the audio input.

Supplied Accessories:	AC power cord
	Operating instructions
	RCC-5G 9-pin remote control cable
Optional Accessories:	i.LINK/DV Input/Output Board DSBK-190
	Control Panel DSBK-200
	Control Panel Case BKNW-121
	Rack Mount Kit RMM-130
	TBC Remote Control Unit UVR-60P
	Remote Control Cable RCC-5G/10G/30G (5 m/10 m/30 m)
	DV Cable CCF-3L (6-pin - 6-pin), CCFD-3L (6-pin - 4-pin)

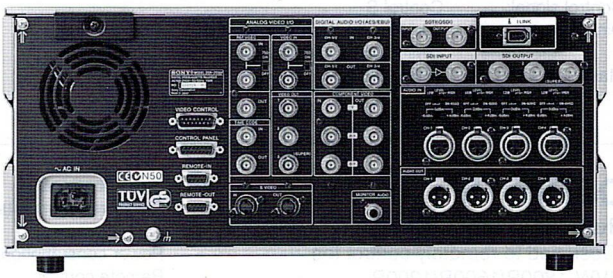
Specifications

General

Power requirements:	AC 100 to 240 V, 50/60 Hz
Power consumption:	110 W
Operating temperature:	5 °C to 40 °C (41 °F to 104 °F)
Storage temperature:	-20 °C to 60 °C (-4 °F to 140 °F)
Operating humidity:	Less than 80%
Storage humidity:	Less than 90%
Mass:	18 kg (39 lb 10 oz)
Dimensions:	427 (W) × 175 (H) × 496.5 (D) mm
	(16 7/8 × 7 × 19 5/8 inches)
Tape speed:	28.221 mm/s
Recording/Playback time:	
Standard size:	184 min. with PDV-184ME/184N/184MEM
Mini size:	40 min. with PDVM-40ME/40N/40MEM
Fast forward/Rewind time:	
Standard size:	Less than 3 min. with PDV-184ME/184N/184MEM
Mini size:	Less than 1 min. with PDVM-40ME/40N/40MEM
Search speed:	
Shuttle mode:	Still to ±60 times normal speed in forward and reverse
Digital slow mode:	±1 times normal speed in forward and reverse

Video Performance

Band width (via analogue component I/O):	
Luminance:	25 Hz to 5.5 MHz +1.0/-2.0 dB
	5.75 MHz +0/-3.0 dB (Typical measurement)
Chrominance:	25 Hz to 2.0 MHz +1.0/-2.0 dB
S/N ratio (via analogue component I/O):	
	More than 55 dB
K-factor (K2T, KPB):	Less than 2.0%
Y/C delay:	Less than 30 ns



Audio Performance

Frequency response:	
2CH mode (48 kHz/16-bit):	
	20 Hz to 20 kHz +0.5/-1.0 dB
4CH mode (32 kHz/12-bit):	
	20 Hz to 14.5 kHz +0.5/-1.0 dB
Dynamic range:	More than 90 dB
Distortion (THD + N):	Less than 0.05%

Input Signals

Video (Analogue)

REF. Video (BNC x2, loop-through connection):	
	Composite, 1.0 Vp-p, 75 Ω, sync negative
Video (BNC x2, loop-through connection):	
	Composite, 1.0 Vp-p, 75 Ω, sync negative
Component (BNC x3):	
Y:	1.0 Vp-p, 75 Ω, sync negative
R-Y:	0.7 Vp-p, 75 Ω (100%)
B-Y:	0.7 Vp-p, 75 Ω (100%)
S-Video (DIN 4-pin x1):	
Y:	1.0 Vp-p, 75 Ω, sync negative
C:	0.3 Vp-p, 75 Ω (at burst level)

Video (Digital)

SDI (BNC x2, active-through connection):	
	Conforms to Serial Digital Interface (270 Mb/s), ITU-R BT.656
SDTI (QSDI) (BNC x1):	Conforms to SDTI (270 Mb/s), SMPTE 305M/322M
i.LINK (DV In/Out) (6-pin x1):	
	IEEE1394-based
	* Using optional DSBK-190 i.LINK/DV Input/Output Board

Audio (Analogue)

Audio (XLR 3-pin female x4):	
	-6/0/+4 dBu, 600 Ω on/off/-60 dBu, high impedance

Audio (Digital)

AES/EBU (BNC x2):	75 Ω, unbalanced

Time Code

Time Code In (BNC x1):	0.5 Vp-p to 18 Vp-p, 3 kΩ, unbalanced

Output Signals

Video (Analogue)

REF. Video (BNC x1):	0.3 Vp-p, 75 Ω, sync negative
Video 1/2/3(SUPER) (BNC x3):	
	Composite, 1.0 Vp-p, 75 Ω, sync negative
Component (BNC x3):	
Y:	1.0 Vp-p, 75 Ω, sync negative
R-Y:	0.7 Vp-p, 75 Ω (100%)
B-Y:	0.7 Vp-p, 75 Ω (100%)
S-Video (DIN 4-pin x1):	
Y:	1.0 Vp-p, 75 Ω, sync negative
C:	0.3 Vp-p, 75 Ω (at burst level)

Video (Digital)

SDI (BNC x3):	Conforms to Serial Digital Interface (270 Mb/s), ITU-R BT.656
SDTI (QSDI) (BNC x1):	Conforms to SDTI (270 Mb/s), SMPTE 305M/322M
i.LINK (DV In/Out) (6-pin x1):	
	IEEE1394-based
	* Using optional DSBK-190 i.LINK/DV Input/Output Board

Audio (Analogue)

Audio (XLR 3-pin male x4):	
	+4/0/-6 dBu (selectable by menu)
Monitor (RCA x1):	-11 dBu, 47 kΩ, unbalanced (-18 dBFS)
Headphone (JM-60 headphone jack x1):	
	-∞ to -13 dBu, 8 Ω, unbalanced (-18 dBFS)

Audio (Digital)

AES/EBU (BNC x2):	75 Ω, unbalanced

Time Code

Time Code Out (BNC x1):	
	2.2 Vp-p, 75 Ω, unbalanced

Remote

RS-422A:	D-sub 9-pin (female) (2)
Video Control:	D-sub 15-pin (male) (1)
Control Panel:	D-sub 15-pin (female) (1)

DSR-85P

High-speed Editing Recorder

•Superb picture quality of the DVCAM format •Playback capability of DV recorded tapes (SP mode only) •Long recording time: up to 184 minutes with a standard-size cassette and 40 minutes with a mini-size cassette •Versatile digital interfaces: SDI*1, SDTI (QSDI) and AES/EBU digital audio •Extensive analogue interfaces: composite, component, S-Video and XLR audio •RS-422A remote control interface •High-speed data transfer at four times normal speed via SDTI (QSDI) interface •High-speed tape dubbing with ClipLink Log Data at four times normal speed via SDTI (QSDI) and RS-422A interfaces •ClipLink operation •Frame accurate editing capability •Built-in EBU time code generator/reader •Time base corrector •High-speed picture search over a range of 32 times normal speed, in both forward and reverse •Digital slow function over a range from 0 to 0.24 times normal speed, in both forward and reverse •Jog audio capability •SIRCS (Sony Integrated Remote Control System) interface for the DSRM-10 Remote Control Unit

*1 The optional DSBK-120P SDI Input/Output Board is required.

Supplied accessories:	AC power cord
	Operating instructions
	ClipLink Guide
	RCC-5G Remote Control Cable
Optional accessories:	SDI Input/Output Board DSBK-120P
	Time Code Input/Output Board DSBK-130P
	Remote Control Unit DSRM-10
	Rack Mount Kit RMM-130
	TBC Remote Control Unit UVR-60P
	Remote Control Cable RCC-5G/10G/30G (5 m/10 m/30 m)

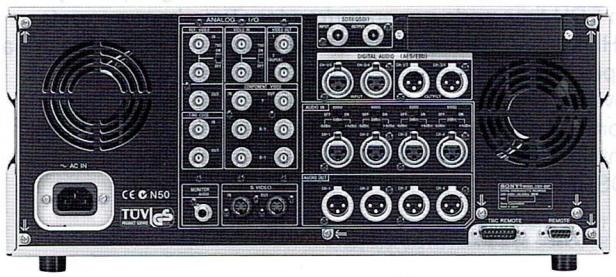
Specifications

General

Type:	High speed editing recorder
Video recording system:	Rotary 14 head helical scan
	Luminance : FM recording
	Chrominance : FM recording
Video signal system:	CCIR monochrome/PAL colour
Power requirements:	AC 220 to 240 V, 50/60 Hz
Power consumption:	185 W
Operating temperature:	5 °C to 40 °C (41 °F to 104 °F)
Storage temperature:	–20 °C to 60 °C (–4 °F to 140 °F)
Operating humidity:	Less than 80%
Storage humidity:	Less than 90%
Mass:	21 kg (46 lb 4 oz)
Dimensions:	427 (W) × 174 (H) × 494 (D) mm
	(16⅞ × 6⅞ × 19½ inches)
	excluding external projections
Tape speed:	28.221 mm/s
Recording/Playback time:	
Standard size:	184 min. w/PDV-184ME/184N/184MEM
Mini size:	40 min. w/PDVM-40ME/40N/40MEM
Fast forward/Rewind time:	
Standard size:	Less than 3 min. w/PDV-184ME/184N/184MEM
Mini size:	Less than 1 min. w/PDVM-40ME/40N/40MEM
Search speed:	
When controlling via RS-422A:	
	Search speed is up to 32 times in forward and reverse
When cotrolling via DSRM-10:	
Jog mode:	Still to ×2, forward and reverse
Shuttle mode:	8 steps, still to ×16 normal speed, forward and reverse
Digital slow mode:	3 steps, still, ×1/5 and ×1/10 normal speed, forward and reverse

Video Performance

Band width (via analogue component I/O):	
Luminance:	25 Hz to 5.5 MHz +1.0/–2.0 dB
	5.75 MHz +0/-3.0 dB (Typical measurement)
Chrominance:	25 Hz to 2.0 MHz +1.0/–2.0 dB
S/N ratio (via analogue component I/O):	
	More than 55 dB
K-factor (K2T, KPB):	Less than 2.0%
Y/C delay:	Less than 30 ns



Audio Performance

Frequency response	
2CH mode (48 kHz/16-bit): 20 Hz to 20 kHz +0.5/–1.0 dB	
4CH mode (32 kHz/12-bit): 20 Hz to 14.5 kHz +0.5/–1.0 dB	
Dynamic range:	More than 85 dB
Distortion (THD+N):	Less than 0.05%

Signal Inputs

Video

REF.VIDEO (BNC x2), loop-through connection):	
	Composite, 1.0 Vp-p, 75 Ω, sync negative
VIDEO (BNC x2), loop-through connection):	
	Composite, 1.0 Vp-p, 75 Ω, sync negative
COMPONENT (BNC x3):	Y: 1.0 Vp-p, 75 Ω, sync negative
	R-Y: 0.7 Vp-p, 75 Ω (100%)
	B-Y: 0.7 Vp-p, 75 Ω (100%)
S-Video (DIN 4-pin x1):	Y : 1.0 Vp-p, 75 Ω, sync negative
	C : 0.3 Vp-p, 75 Ω (at burst level)
SDI*1 (BNC x2), active-through connection):	
	Conforms to Serial Digital Interface (270 Mb/s), ITU-R BT.656
SDTI (QSDI) (BNC x1):	Conforms to SDTI (270 Mb/s), SMPTE 305M/322M

Audio

AUDIO (XLR 3-pin female x4):	
	–6/0/+4 dBu, 600 Ω on/off/-60 dBu, high impedance
AES/EBU (XLR 3-pin female x2):	
	110 Ω, balanced

Signal Outputs

Video

REF.VIDEO (BNC x1):	0.3 Vp-p, 75 Ω, sync negative
VIDEO 1/2(SUPER) (BNC x2):	
	Composite, 1.0 Vp-p, 75 Ω, sync negative
COMPONENT (BNC x3):	Y: 1.0 Vp-p, 75 Ω, sync negative
	R-Y: 0.7 Vp-p, 75 Ω (100%)
	B-Y: 0.7 Vp-p, 75 Ω (100%)
S-Video (DIN 4-pin x1):	Y : 1.0 Vp-p, 75 Ω, sync negative
	C : 0.3 Vp-p, 75 Ω (at burst level)
SDI*1 (BNC x2):	Conforms to Serial Digital Interface (270 Mb/s), ITU-R BT.656
SDTI (QSDI) (BNC x1):	Conforms to SDTI (270 Mb/s), SMPTE 305M/322M

Audio

AUDIO (XLR 3-pin male x4):	
	4 dBu, 600 Ω loading, low impedance, balanced
AUDIO MONITOR (RCA phono jack x1):	
	–6 dBu, 47 kΩ, unbalanced
HEADPHONES (JM-60 headphone jack x1):	
	–16 dBu, 8 Ω, unbalanced
AES/EBU (XLR 3-pin male x2):	
	110 Ω, balanced

Time Code Input/Output*2

Time Code In (BNC x1):	0.5 Vp-p to 18 Vp-p, 3 kΩ, unbalanced
Time Code Out (BNC x1):	2.2 Vp-p, 75 Ω, unbalanced

Remote

RS-422A:	D-sub 9-pin (female) (1)
TBC:	D-sub 15-pin (male) (1)
CONTROL-S (SIRCS):	Stereo mini jack (1)

*1 Using optional DSBK-120P (SDI Input/Output Board)
*2 Using optional DSBK-130P (Time Code Input/Output Board)

DSR-80P

Editing Recorder

•Superb picture quality of the DVCAM format •Playback capability of DV recorded tapes (SP mode only) •Long recording time: up to 184 minutes with a standard-size cassette and 40 minutes with a mini-size cassette •Versatile digital interfaces: SDI*1, SDTI (QSDI) and AES/EBU digital audio •Extensive analogue interfaces: composite, component*2, RGB*2, S-Video and XLR audio •RS-422A remote control interface •ClipLink operation •Full tape dubbing with ClipLink Log Data via SDTI (QSDI) and RS-422A interfaces •Frame accurate editing capability •Built-in EBU time code generator/reader •Time base corrector •High-speed picture search over a range of 32 times normal speed, in both forward and reverse •Digital slow function over a range from 0 to 0.39 times normal speed, in both forward and reverse •Jog audio capability •SIRCS (Sony Integrated Remote Control System) interface for the DSRM-10 Remote Control Unit

*1 The optional DSBK-120P SDI Input/Output Board is required.
*2 Selectable by a switch on the rear panel

Supplied accessories:	AC power cord Operating instructions ClipLink Guide RCC-5G Remote Control Cable
Optional accessories:	SDI Input/Output Board DSBK-120P Time Code Input/Output Board DSBK-130P Remote Control Unit DSRM-10 Rack Mount Kit RMM-130 TBC Remote Control Unit UVR-60P Remote Control Cable RCC-5G/10G/30G (5 m/10 m/30 m)

Specifications

General

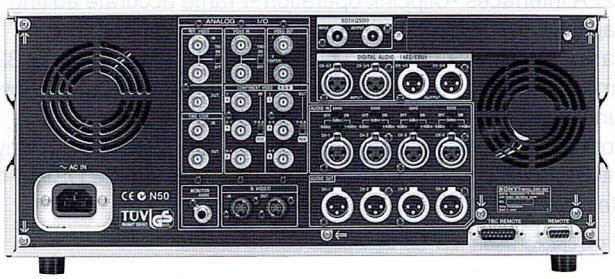
Type:	Editing recorder
Video recording system:	Rotary 6 head helical scan Luminance : FM recording Chrominance : FM recording
Video signal system:	CCIR monochrome/PAL colour
Power requirements:	AC 220 to 240 V, 50/60 Hz
Power consumption:	145 W
Operating temperature:	5 °C to 40 °C (41 °F to 104 °F)
Storage temperature:	–20 °C to 60 °C (–4 °F to 140 °F)
Operating humidity:	Less than 80%
Storage humidity:	Less than 90%
Mass:	19 kg (41 lb 14 oz)
Dimensions:	427 (W) × 174 (H) × 494 (D) mm (16⅞ × 6⅞ × 19½ inches) excluding external projections
Tape speed:	28.221 mm/s
Recording/Playback time:	
Standard size:	184 min. w/PDV-184ME/184N/184MEM
Mini size:	40 min. w/PDVM-40ME/40N/40MEM
Fast forward/Rewind time:	
Standard size:	Less than 3 min. w/PDV-184ME/184N/184MEM
Mini size:	Less than 1 min. w/PDVM-40ME/40N/40MEM
Search speed:	
When controlling via RS-422A:	
	Search speed is up to 32 times in forward and reverse
When cotrolling via DSRM-10	
Jog mode:	Still to ×2, forward and reverse
Shuttle mode:	8 steps, still to ×16 normal speed, forward and reverse
Digital slow mode:	3 steps, still, ×1/5 and ×1/10 normal speed, forward and reverse

Video Performance

Band width (via analogue component I/O):	
Luminance:	25 Hz to 5.5 MHz +1.0/–2.0 dB 5.75 MHz +0/-3.0 dB (Typical measurement)
Chrominance:	25 Hz to 2.0 MHz +1.0/–2.0 dB
S/N ratio (via analogue component I/O):	
	More than 55 dB
K-factor (K2T, KPB):	Less than 2.0%
Y/C delay:	Less than 30 ns

Audio Performance

Frequency response:	
2CH mode (48 kHz/16-bit):	
	20 Hz to 20 kHz +0.5/–1.0 dB
4CH mode (32 kHz/12-bit):	
	20 Hz to 14.5 kHz +0.5/–1.0 dB
Dynamic range:	More than 85 dB
Distortion (THD+N):	Less than 0.05%



Signal Inputs

Video

REF.VIDEO (BNC x2), loop-through connection):	
Black burst:	0.3 Vp-p, 75 Ω, sync negative
Composite sync:	2.0 Vp-p, 75 Ω, sync negative (when not adding sync to RGB outputs)
VIDEO (BNC x2), loop-through connection):	
	Composite, 1.0 Vp-p, 75 Ω, sync negative
RGB/COMPONENT (BNC x3) (selectable):	
	Y/R-Y/B-Y: Y: 1.0 Vp-p, 75 Ω, sync negative R-Y/B-Y: 0.7 Vp-p, 75 Ω (100%)
	R.G (w/o sync).B: 0.7 Vp-p, 75 Ω
	G (w/sync): 1.0 Vp-p, 75 Ω, sync negative
S-Video (DIN 4-pin x1):	Y: 1.0 Vp-p, 75 Ω, sync negative C: 0.3 Vp-p, 75 Ω (at burst level)
SDI*1 (BNC x2), active-through connection):	
	Conforms to Serial Digital Interface (270 Mb/s), ITU-R BT.656
SDTI (QSDI) (BNC x1)	Conforms to SDTI (270 Mb/s), SMPTE 305M/322M

Audio

AUDIO (XLR 3-pin female x4):	
	–6/0/+4 dBu, 600 Ω on/off/–60 dBu, high impedance
AES/EBU (XLR 3-pin female x2):	
	110 Ω, balanced

Signal Outputs

Video

REF.VIDEO (BNC x1):	
Black burst:	0.3 Vp-p, 75 Ω, sync negative
Composite sync:	2.0 Vp-p, 75 Ω, sync negative (when not adding sync to RGB output)
VIDEO 1/2(SUPER) (BNC x2):	
	Composite, 1.0 Vp-p, 75 Ω, sync negative
RGB/COMPONENT (BNC x3) (selectable):	
	Y/R-Y/B-Y : Y: 1.0 Vp-p, 75 Ω, sync negative R-Y/B-Y: 0.7 Vp-p, 75 Ω (100%)
	R.G (w/o sync).B : 0.7 Vp-p, 75 Ω
	G (w/sync): 1.0 Vp-p, 75 Ω, sync negative
S-Video (DIN 4-pin x1):	Y: 1.0 Vp-p, 75 Ω, sync negative C: 0.3 Vp-p, 75 Ω (at burst level)
SDI*1 (BNC x2):	Conforms to Serial Digital Interface (270 Mb/s), ITU-R BT.656
SDTI (QSDI) (BNC x1):	Conforms to SDTI (270 Mb/s), SMPTE 305M/322M

Audio

AUDIO (XLR 3-pin male x4):	
	4 dBu, 600 Ω loading, low impedance, balanced
AUDIO MONITOR (RCA phono jack x1):	
	–6 dBu, 47 kΩ, unbalanced
HEADPHONES (JM-60 headphone jack x1):	
	–16 dBu, 8 Ω, unbalanced
AES/EBU (XLR 3-pin male x2):	
	110 Ω, balanced

Time Code Input/Output*2

Time Code In (BNC x1):	0.5 Vp-p to 18 Vp-p, 3 kΩ, unbalanced
Time Code Out (BNC x1):	2.2 Vp-p, 75 Ω, unbalanced

Remote

RS-422A:	D-sub 9-pin (female) (1)
TBC:	D-sub 15-pin (male) (1)
CONTROL-S (SIRCS):	Stereo mini jack (1)

*1 Using optional DSBK-120P (SDI Input/Output Board)
*2 Using optional DSBK-130P (Time Code Input/Output Board)

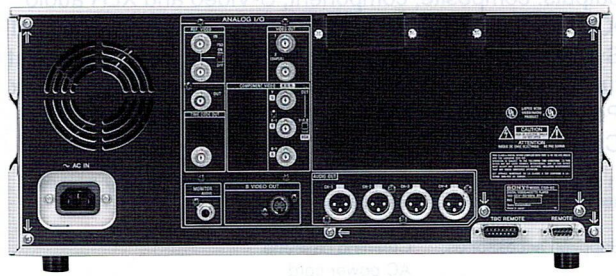
DSR-60P

Editing Player

•Superb picture quality of the DVCAM format •Playback capability of DV recorded tapes (SP mode only) •Versatile digital interfaces: SDI*1 and SDTI (QSDI)*2 •Extensive analogue interfaces: composite, component*3, RGB*3, S-Video and XLR audio •RS-422A remote control interface •ClipLink operation •Frame accurate editing capability •Built-in EBU time code reader •Time base corrector •High-speed picture search over a range of 32 times normal speed, in both forward and reverse •Digital slow function over a range from 0 to 0.32 times normal speed, in both forward and reverse •Jog audio capability •Auto repeat/Power-on playback function •SIRCS (Sony Integrated Remote Control System) interface for the DSRM-10 Remote Control Unit

*1 The optional DSBK-100P SDI Output Board is required.
*2 The optional DSBK-110P QSDI Output Board is required.
*3 Selectable by a switch on the rear panel

Supplied accessories:	AC power cord Operating instructions ClipLink Guide RCC-5G Remote Control Cable
Optional accessories:	SDI Output Board DSBK-100P QSDI Output Board DSBK-110P Time Code Input/Output Board DSBK-130P (Output only) Remote Control Unit DSRM-10 Rack Mount Kit RMM-130 TBC Remote Control Unit UVR-60P Remote Control Cable RCC-5G/10G/30G (5 m/10 m/30 m)



Specifications

General

Type:	Editing player
Video recording system:	Rotary 2 head helical scan Luminance : FM recording Chrominance : FM recording
Video signal system:	CCIR monochrome/PAL colour
Power requirements:	AC 220 to 240 V, 50/60 Hz
Power consumption:	87 W
Operating temperature:	5 °C to 40 °C (41 °F to 104 °F)
Storage temperature:	–20 °C to 60 °C (–4 °F to 140 °F)
Operating humidity:	Less than 80%
Storage humidity:	Less than 90%
Mass:	18 kg (39 lb 10 oz)
Dimensions:	427 (W) × 174 (H) × 494 (D) mm (16⅞ × 6⅞ × 19½ inches) excluding external projections
Tape speed:	28.221 mm/s
Recording/Playback time:	
Standard size:	184 min. w/PDV-184ME/184N/184MEM
Mini size:	40 min. w/PDVM-40ME/40N/40MEM
Fast forward/Rewind time:	
Standard size:	Less than 3 min. w/PDV-184ME/184N/184MEM
Mini size:	Less than 1 min. w/PDVM-40ME/40N/40MEM
Search speed:	
When controlling via RS-422A:	Search speed is up to 32 times in forward and reverse
When cotrolling via DSRM-10:	
Jog mode:	Still to ×2, forward and reverse
Shuttle mode:	8 steps, still to ×16 normal speed, forward and reverse
Digital slow mode:	3 steps, still, ×1/5 and ×1/10 normal speed, forward and reverse

Video Performance

Band width (via analogue component I/O):	
Luminance:	25 Hz to 5.5 MHz +1.0/–2.0 dB 5.75 MHz +0/-3.0dB (Typical measurement)
Chrominance:	25 Hz to 2.0 MHz +1.0/–2.0 dB
S/N ratio (via analogue component I/O):	More than 55 dB
K-factor (K2T, KPB):	Less than 2.0%
Y/C delay:	Less than 30 ns

Audio Performance

Frequency response:	
2CH mode (48 kHz/16-bit)	20 Hz to 20 kHz +0.5/–1.0 dB
4CH mode (32kHz/12-bit)	20 Hz to 14.5 kHz +0.5/–1.0 dB
Dynamic range:	More than 85 dB
Distortion (THD+N):	Less than 0.05%

Signal Inputs

Video

REF.VIDEO (BNC x2), loop-through connection):

Black burst:	0.3 Vp-p, 75 Ω, sync negative
Composite sync:	2.0 Vp-p, 75 Ω, sync negative (when not adding sync to RGB)

Signal Outputs

Video

REF.VIDEO (BNC x1):	
Black burst:	0.3 Vp-p, 75 Ω, sync negative
Composite sync:	2.0 Vp-p, 75 Ω, sync negative (when not adding sync to RGB output)
VIDEO 1/2(SUPER) (BNC x2):	Composite, 1.0 Vp-p, 75 Ω, sync negative
RGB/COMPONENT (BNC x3) (selectable):	Y/R-Y/B-Y: Y: 1.0 Vp-p, 75 Ω, sync negative R-Y/B-Y: 0.7 Vp-p, 75 Ω (100%) R.G (w/o sync).B: 0.7 Vp-p, 75 Ω G (w/sync): 1.0 Vp-p, 75 Ω, sync negative
S-Video (DIN 4-pin x1):	Y: 1.0 Vp-p, 75 Ω, sync negative C: 0.3 Vp-p, 75 Ω (at burst level)
SDI*1 (BNC x2):	Conforms to Serial Digital Interface (270 Mb/s), ITU-R BT.656
SDTI (QSDI)*2 (BNC x1):	Conforms to SDTI (270 Mb/s), SMPTE 305M

Audio

AUDIO (XLR 3-pin male x4):	4 dBu, 600 Ω loading, low impedance, balanced
AUDIO MONITOR (RCA phono jack x1):	–6 dBu, 47 kΩ, unbalanced
HEADPHONES (JM-60 headphone jack x1):	–16 dBu, 8 Ω, unbalanced

Time Code Output*3

Time Code Out (BNC x1):	2.2 Vp-p, 75 Ω, unbalanced

Remote

RS-422A:	D-sub 9-pin (female) (1)
TBC:	D-sub 15-pin (male) (1)
CONTROL-S (SIRCS):	Stereo mini jack (1)

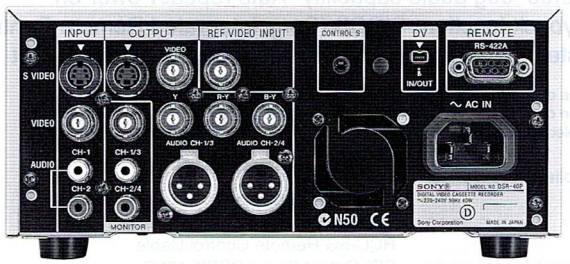
*1 Using optional DSBK-100P (SDI Output Board)
*2 Using optional DSBK-110P (QSDI Output Board)
*3 Using optional DSBK-130P (Time Code Input/Output Board)

DSR-40P

Recorder

•Superb picture quality of the DVCAM format •Playback capability of DV recorded tapes (SP mode only) •Long recording time: up to 184 minutes with a standard-size cassette and 40 minutes with a mini-size cassette •RS-422A remote control interface enables this unit to perform as the editing player in an A/B roll editing system*1 or cut-editing system •i.LINK (DV In/Out) interface providing a single cable connection to simultaneously transfer data and control signals as well as digital video and audio signals, with virtually no generation loss •Full range of analogue video outputs: composite, component, S-Video and XLR audio •Control S interface for remote control operation •External Sync In connector for synchronised playback •Auto repeat function •Compact and lightweight (half-rack width) •Index Points search functions (when using a cassette with IC Cassette Memory)

*1 Since the DSR-40P is not equipped with the synchronisation capability, the editing accuracy is performed by pre-roll and play.



Supplied accessories: Cleaning cassette
AC power cord
Operating instructions

Optional accessories: Remote Control Unit DSRM-20
VMC-IL4415 i.LINK Cable
VMC-IL4435 i.LINK Cable
VMC-IL4615 i.LINK Cable
VMC-IL4635 i.LINK Cable

Specifications

General

Type: Recorder
Video signal standard: CCIR standards, PAL colour
Power requirements: AC: 220 to 240 V, 50/60 Hz
Power consumption: 40 W
Operating temperature: 5 °C to 40 °C (41 °F to 104 °F)
Storage temperature: -20 °C to 60 °C (-4 °F to 140 °F)
Mass: Approx. 5.0 kg (11 lb)
Dimensions: 212 (W) × 98 (H) × 392 (D) mm
(8 3/8 × 3 7/8 × 15 1/2 inches)
(including external projections)
Tape speed:
DVCAM mode: 28.221 mm/s
DV SP playback mode: 18.831 mm/s
Recording/Playback time:
Standard size: 184 min. with PDV-184ME/184N/184MEM
Mini size: 40 min. with PDVM-40ME/40N/40MEM
Tape rewind time: Less than 2 min. with PDV-184ME/184N/184MEM
Search speed (via DSRM-20):
Shuttle mode: ±1/10, 1/5, 1, 2, approx. 10, approx. 17 times
Jog mode: ±1/10, 1/5, 1, 2 times

Signal Inputs

Video (Analogue)

Ref.Video (BNC x1): Black burst: 75 Ω, sync negative
Video (BNC x1): Composite, 1.0 Vp-p, 75 Ω, unbalanced, sync negative
S-Video (Mini DIN 4-pin x1):
Y: 1.0 Vp-p, 75 Ω, unbalanced, sync negative
C: 0.3 Vp-p (subcarrier), 75 Ω, unbalanced

Audio (Analogue)

Audio (RCA phono jack x2/stereo L/R):
2 Vrms (full bit)

Signal outputs

Video (Analogue)

Video (BNC x1): Composite, 1.0 Vp-p, 75 Ω, unbalanced, sync negative
S-Video (Mini DIN 4-pin x1):
Y: 1.0 Vp-p, 75 Ω, unbalanced, sync negative
C: 0.3 Vp-p (subcarrier), 75 Ω, unbalanced
Component (BNC x3): Y: 1.0 Vp-p, 75 Ω, unbalanced, sync negative
R-Y/B-Y: 0.7 Vp-p (with 100% colour burst)
Monitor (BNC x1): Composite, 1.0 Vp-p, 75 Ω, unbalanced, sync negative

Audio (Analogue)

Audio (XLR 3-pin male x2, stereo L/R):
4 dBu, balanced
Monitor (Phono jack x2, stereo L/R):
2 Vrms

Digital Input/Output

i.LINK (DV In/Out) (4-pin x1):
IEEE1394-based

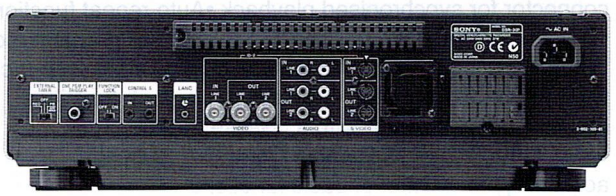
OTHERS

RS-422A: D-sub 9-pin (female) (1)
Control S IN: Stereo mini jack (1)
Headphone: Stereo mini jack (1)

DSR-30P

Recorder

•Superb picture quality of the DVCAM format •Playback capability of DV recorded tapes (SP mode only) •Long recording time: up to 184 minutes with a standard-size cassette and 40 minutes with a mini-size cassette •i.LINK (DV In/Out) interface providing a single cable connection to simultaneously transfer data and control signals as well as digital video and audio signals, with virtually no generation loss •LANC interface for simple editing with a LANC-equipped recorder or editing system •Auto repeat function •One-programme playback function to automatically rewind to the beginning of a tape and enter Standby mode •Power-on playback/recording capabilities •External timer recording •Duplication mode with original time code •Function lock to avoid accidental operation •Built-in control tray with a Jog/Shuttle dial with a range of 1/5 to 18 times normal speed, in both forward and reverse •Index Points search functions (when using a cassette with IC Cassette Memory) •Clear frame picture •RMT-DS30 Wireless Remote Controller (supplied accessory) for control of basic functions •Headphone/microphone connections



Supplied accessories:	AC power cord
	Operating instructions
	Wireless Remote Controller RMT-DS30
	R6 batteries
	LANC cable
	Cleaning cassette DVM12CL
Optional accessories:	VMC-IL4415 i.LINK cable
	VMC-IL4435 i.LINK cable
	VMC-IL4615 i.LINK cable
	VMC-IL4635 i.LINK cable
	Editing System FXE-120P
	LANC Interface Box IF-FXE2

Specifications

General

Type:	Recorder
Video signal system:	CCIR monochrome/PAL colour
Power requirements:	AC 220 to 240 V, 50/60 Hz
Power consumption:	32 W
Operating temperature:	5 °C to 40 °C (41 °F to 104 °F)
Storage temperature:	–20 °C to 60 °C (–4 °F to 140 °F)
Mass:	Approx. 9.2 kg (20 lb 4 oz)
Dimensions:	430 (W) × 129 (H) × 374 (D) mm
	(17 × 5⅛ × 14¾ inches)
Tape speed:	28.221 mm/s (DVCAM mode)
	18.831 mm/s (DV SP playback mode)
Recording/Playback time:	
Standard size:	184 min. w/PDV-184ME/184N/184MEM
Mini size:	40 min. w/PDVM-40ME/40N/40MEM
Fast forward/Rewind time:	
Standard size:	Less than 2 min. w/PDV-184ME/184N/184MEM
Search speed:	–2, –1, –1/5, still, 1/5, 1, 2 times
	Cue/Review (10 or 18 times)

Signal Inputs

Video (ANALOGUE)

VIDEO (BNC x1, Phono jack x1):
Composite, 1.0 Vp-p, 75 Ω, sync negative

S-Video (Mini DIN 4-pin x2, front x1, rear x1):
Y: 1.0 Vp-p, 75 Ω, sync negative, unbalanced
C : 0.3 Vp-p (subcarrier burst), 75 Ω, unbalanced

Video (DIGITAL)

i.LINK (DV In/Out) (4-pin x1):
IEEE1394-based

Audio (ANALOGUE)

Audio (Phono jacks x2/stereo L/R, front x1, rear x1):
Input level : 2 Vrms (full bit)

Signal Outputs

Video (ANALOGUE)

VIDEO (BNC x2, Phono jack x1):
Composite, 1.0 Vp-p, 75 Ω, sync negative

S-Video (Mini DIN 4-pin x2):
Y : 1.0 Vp-p, 75 Ω, sync negative, unbalanced
C : 0.3 Vp-p (subcarrier burst), 75 Ω, unbalanced

Video (DIGITAL)

i.LINK (DV In/Out) (4-pin x1)*:
IEEE1394-based

Audio (ANALOGUE)

Audio (Phono jacks x1, stereo L/R):
Output level : 2 Vrms (full bit)

Remote

LANC:	Stereo mini-mini jack (2)
	(front x 1, rear x 1, priority on the front)
CONTROL-S input:	Mini jack (1)
CONTROL-S output:	Mini jack (1)

Others

Headphone jack:	Stereo mini jack (1)
Trigger input:	Phone jack (1) (active short)
MIC input:	Mini jack (2)

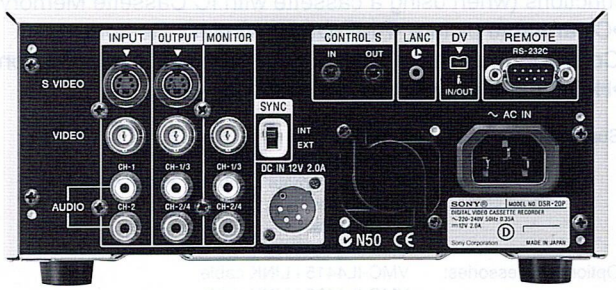
*Shared with input connector.

DSR-20P

Recorder

•Superb picture quality of the DVCAM format •Playback capability of DV recorded tapes (SP mode only) •Long recording time: up to 184 minutes with a standard-size cassette and 40 minutes with a mini-size cassette •i.LINK (DV In/Out) interface providing a single cable connection to simultaneously transfer data and control signals as well as digital video and audio signals, with virtually no generation loss •LANC interface for simple editing with a LANC-equipped recorder or editing system •RS-232C and Control S interfaces for remote control operation •External Sync*1 In connector for synchronised playback •Auto repeat function •Power-on playback/recording capabilities •Duplication mode with original time code •Compact and lightweight (half-rack width) •AC/DC operation •Index Points search functions (when using a cassette with IC Cassette Memory) •RMT-DS20 Wireless Remote Controller (supplied accessory) for control of basic functions

*1 The DSR-20P locks to V-sync only.



Supplied accessories: Wireless remote controller RMT-DS20 (1)
R6 batteries (2)
Cleaning cassette DCM12CLE (1)
AC power cord (1)
Operation manual (1)
RS-232C protocol manual (1)

Optional accessories: LANC Interface Box IF-FXE2
Remote Control Unit DSRM-10
VMC-IL4415 i.LINK Cable
VMC-IL4435 i.LINK Cable
VMC-IL4615 i.LINK Cable
VMC-IL4635 i.LINK Cable

Specifications

General

Type: Recorder
Video signal standard: CCIR standards, PAL colour
Power requirement: AC: 220 to 240 V, 50/60 Hz DC: 12 V
Power consumption: AC: 28 W DC: 2.0 A (4.0 A PEAK)
Operating temperature: 5 °C to 40 °C (41 °F to 104 °F)
Storage temperature: -20 °C to 60 °C (-4 °F to 140 °F)
Mass: Approx. 5.0 kg (11 lb)
Dimensions: 212 (W) × 98 (H) × 392 (D) mm
(8 3/8 × 3 7/8 × 15 1/2 inches)
(including external projections)
Tape speed:
DVCAM mode: 28.221 mm/s
DV SP playback mode: 18.831 mm/s
Recording/Playback time:
Standard size: 184 min. with PDV-184ME/184N/184MEM
Mini size: 40 min. with PDVM-40ME/40N/40MEM
Tape rewind time: Less than 2 min. with PDV-184ME/184N/184MEM
Search speed (via RMT-DS20 or DSRM-10):
-2, -1, -1/5, still, 1/5, 1, 2, Cue/Review (10 or 18 times)

Signal Inputs

Video (ANALOGUE)
VIDEO (BNC x1)*1: Composite, 1.0 Vp-p, 75 Ω, unbalanced, sync negative
S-Video (Mini DIN 4-pin x1):
Y:1.0 Vp-p, 75 Ω, unbalanced, sync negative
C:0.3 Vp-p (subcarrier), 75 Ω, unbalanced

Audio(ANALOGUE)
AUDIO (Phono jack x2/stereo L/R):
2 Vrms (full bit)

Signal outputs

Video(ANALOGUE)
VIDEO (BNC x1): Composite, 1.0 Vp-p, 75 Ω, unbalanced, sync negative
S-Video (Mini DIN 4-pin x1):
Y: 1.0 Vp-p, 75 Ω, unbalanced, sync negative
C: 0.3 Vp-p (subcarrier), 75 Ω, unbalanced
Monitor (BNC x1): Composite, 1.0 Vp-p, 75 Ω, unbalanced, sync negative

Audio(ANALOGUE)
AUDIO (Phono jack x2/stereo L/R):
2 Vrms (full bit)
L: CH1, CH3, or CH1/3 mix
R: CH2, CH4, or CH2/4 mix

Digital Input/Output
i.LINK (DV In/Out) (4-pin x1):
IEEE1394-based

OTHERS
LANC: Stereo mini-mini jack (1)
RS-232C: D-sub 9-pin (male) (1)
Control S: Stereo mini jack (IN (1) / OUT (1))
DC IN (12 V): Canon 4-pin (1)
Headphone: Stereo mini jack (1)

*1 Shared with the External Sync IN

DSR-1P

Dockable Recorder

•Compact and lightweight: 2.85 kg (6 lb 4 oz) including battery •Perfect camcorder operation by docking with the DXC-D30P Digital Video Camera •Dual-size cassette mechanism: both standard- and mini-size cassettes accepted •Dual interface mechanism: Pro 76-pin Digital and Pro 50-pin interfaces for direct connection with both Sony digital and analogue cameras •Superb picture quality of the DVCAM format •Playback capability of DV recorded tapes (SP mode only) •Long recording time: up to 184 minutes with a standard-size cassette and 40 minutes with a mini-size cassette •ClipLink operation •Full colour picture playback capability without any playback adaptor •Record review function •Frame accurate back-space editing •Built-in EBU time code generator/reader •Time base stabiliser •Full VTR function control (Fast Forward/Rewind/Play/Stop/Eject) •Comprehensive 8-digit LCD

Supplied accessories:	Shoulder strap
	Lithium-ion button cell (type CR2032)
	Operating instructions
	ClipLink Guide
	Connector cap
	M4 ×6 Screws (2)
	M4 ×12 Screws (2)
Optional accessories:	Rechargeable NiCd Battery NP-1B
	Rechargeable NiCd Battery BP-90A
	Rechargeable Lithium-ion Battery BP-L60/L90
	Battery Case (for NP-1B) DC-520
	Battery Case (for BP-90A) DC-500
	Battery Case (for BP-90A, waist belt type) DC-210
	Battery Adaptor (for BP-L60/L90) BKW-L601
	Battery Charger (for NP-1B) BC-1WDCE
	Battery Charger (for BP-90A/NP-1B) BC-410CE
	Battery Charger (for BP-L60/L90) BC-L100CE
	AC Power Adaptor CMA-8ACE
	AC Power Adaptor AC-550CE
	Power Supply Cable (for CMA-8ACE) CCQX-3
	Camera Adaptor (for BVP series) CA-514

Specifications

General

Type:	Dockable recorder
Power requirements:	DC 12 V, +5/-1 V
Power consumption:	12 W (10 W in recording mode w/DXC-D30P)
Operating temperature:	0 °C to 40 °C (32 °F to 104 °F)
Storage temperature:	–20 °C to 60 °C (–4 °F to 140 °F)
Operating humidity:	Less than 85%
Storage humidity:	Less than 90%
Mass:	2.85 kg (6 lb 4 oz) (including NP-1B Battery)
Dimensions:	118 (W) × 185 (H) × 210 (D) mm
	(4¾ × 7⅜ × 8⅜ inches)
Tape speed:	28.221 mm/s
Recording/Playback time:	
Standard size:	184 min. w/PDV-184ME/184N/184MEM
Mini size:	40 min. w/PDVM-40ME/40N/40MEM
Fast forward/Rewind time:	
Standard size:	Less than 12 min. w/PDV-184ME/184N/184MEM
Mini size:	Less than 3 min. w/PDVM-40ME/40N/40MEM
Continuous recording time:	
	Approx. 60 min. w/NP-1B (DSR-1P+DXC-D30P)

Video Performance

Band width:	
Luminance:	25 Hz to 5.5 MHz +1.0/–2.0 dB
	5.75 MHz +0/-3.0 dB (Typical measurement)
Chrominance:	25 Hz to 2.0 MHz +1.0/–2.0 dB
S/N ratio:	More than 55 dB
K-factor (K2T, KPB):	Less than 2.0%
Y/C delay:	Less than 30 ns

Audio Performance

Frequency response:	
2CH mode (48 kHz/16-bit)	
	20 Hz to 20 kHz +0.5/–1.0 dB
4CH mode (32 kHz/12-bit)	
	20 Hz to 14.5 kHz +0.5/–1.0 dB
Dynamic range:	More than 80 dB
Distortion (THD+N):	Less than 0.08%

Signal Inputs

GEN LOCK VIDEO IN (BNC):	
	1.0 Vp-p, 75 Ω
EXT AUDIO IN CH-1/2 (XLR 3-pin female):	
	–60 dBu, 3 kΩ/±4 dBu, 10 kΩ
TIME CODE IN (BNC):	0.5 Vp-p to 18 Vp-p, 10 kΩ

Signal Outputs

VIDEO OUT (BNC):	1.0 Vp-p, 75 Ω
S-VIDEO (DIN 4-pin):	Y : 1.0 Vp-p, 75 Ω, sync negative
	C : 0.3 Vp-p, 75 Ω
AUDIO OUT CH-1/2 (RCA pin):	
	–10 dBu, 47 kΩ
TIME CODE OUT (BNC):	1.0 Vp-p, 75 Ω

Others

ANALOGUE I/F:	Pro 50-pin (1)
DIGITAL I/F:	Pro 76-pin Digital (1)
DC 12V:	XLR 4-pin (male) (at rear) (1)
DC OUT:	XLR 4-pin (female) (1)
EARPHONE OUT:	Stereo mini jack (1)

* The specifications of "Video/Audio performance" were measured by playing back material on the DSR-85P (via analogue component out) that had been recorded on the DSR-1P.

DSR-70P

Portable Editing Recorder

•Superb picture quality of the DVCAM format •Playback capability of DV recorded tapes (SP mode only) •Long recording time: up to 184 minutes with a standard-size cassette and 40 minutes with a mini-size cassette •Compact, all-in-one package including a 6.4-inch VGA LCD monitor, a full cut-editing controller with a Jog/Shuttle dial and an audio speaker •VTR-to-VTR editing as a double deck editor by docking two DSR-70P units or a DSR-70P and a DNW-A25P Betacam SX portable editing recorder •Two-camera switching recording*1 •Sequential recording for up to six hours in the double deck configuration •Parallel-run recording to make two docked DSR-70P units record simultaneously •Audio mix/swap recording •ClipLink operation: cue up to Mark In/Cue address, change of Mark In/Out points, change of OK/NG status and creation of new Mark In/Out points •Full tape dubbing with ClipLink Log Data via SDTI (QSDI) and RS-422A interfaces •Versatile digital interfaces: SDI*2, SDTI (QSDI)*3 and i.LINK (DV In/Out)*4 •Extensive analogue interfaces: composite, component*5, S-Video and XLR audio •RS-422A remote control interface •Frame accurate editing capability •Built-in EBU time code generator/reader •Process control for highly stable video signals •High-speed picture search over a range of 32 times normal speed, in both forward and revers •Digital slow function over a range of 0 to 0.5 times normal speed, in both forward and reverse •Jog audio capability •Two-way power supply system for operation on either AC or DC power •16:9 and 4:3 switchable

*1 The optional DSBK-180P Dual Video Input Board is required.
*2 The optional DSBK-160 SDI Input/Output Board is required.
*3 The optional DSBK-150 SDTI (QSDI) Input/Output Board is required.
*4 The optional DSBK-140 i.LINK/DV Input/Output Board is required.
*5 The optional DSBK-170 Analogue Component Input/Output Board is required.
Note: Optional interface boards (DSBK-140/150/160/170) cannot be used in combination with each other.
However, these boards can be used together with the optional DSBK-180P.

Supplied accessories: Carrying Belt (1)
Operation Manual (1)
Connector Cap ((1) / per interface)

Optional accessories: i.LINK/DV Input/Output Board DSBK-140
SDTI(QSDI) Input/Output Board DSBK-150
SDI Input/Output Board DSBK-160
Analogue Component Input/Output Board DSBK-170
Dual Video Input Board DSBK-180P
Rechargeable Lithium-ion Battery BP-L60A/L90A
Battery Charger for BP-L60A/L90A BC-L50
Battery Charger for BP-L60A/L90A BC-L100CE
AC Adaptor AC-DN2A
AC Adaptor AC-550CE
AC Adapror CMA-8ACE
Remote Control Cable RCC-5G/10G/30G
Docking Kit BKNW-225
Carrying Case LC-DN220

SPECIFICATIONS

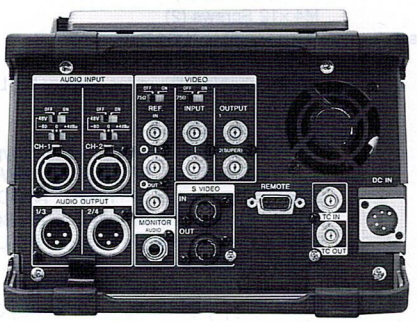
GENERAL

Power requirements: DC 12 V
Power consumption: 46 W (without options)
Operating temperature: 0 °C to 40 °C (32 °F to 104 °F)
Storage temperature: -20 °C to 60 °C (-4 °F to 140 °F)
Operating humidity: Less than 80 %
Storage humidity: Less than 90 %
Mass: 5.8 kg (12 lb 12 oz)
Dimensions: 211 (W) × 149 (H) × 443 (D) mm
(8 3/8 × 5 7/8 × 17 1/2 inches)
Tape speed: 28.221 mm/s
Recording/Playback time:
Standard size: 184 min. with PDV-184ME/184N/184MEM
Mini size: 40 min. with PDVM-40ME/40N/40MEM
Fast forward/Rewind time:
Standard size: Less than 3 min. with PDV-184ME/184N
Mini size: Less than 1 min. with PDVM-40ME/40N
Search speed: x32, forward and reverse

Signal Inputs

Video (ANALOGUE)

Ref. Video (BNC x2), loop-through connection):
Composite, 1.0 Vp-p, 75 Ω, sync negative
Video (BNC x2), loop-through connection):
Composite, 1.0 Vp-p, 75 Ω, sync negative
Component (BNC x3)*1: Y: 1.0 Vp-p, 75 Ω, sync negative
R-Y: 0.7 Vp-p, 75 Ω (100 %)
B-Y: 0.7 Vp-p, 75 Ω (100 %)
S-Video (DIN 4-pin x1): Y: 1.0 Vp-p, 75 Ω, sync negative
C: 0.3 Vp-p, 75 Ω (at burst level)



(without optional interface boards)

Video (DIGITAL)

i.LINK (DV In/Out) (6-pin x1)*2:
IEEE1394-based
SDTI(QSDI) (BNC x1)*3: Conforms to SDTI (270 Mb/s), SMPTE305M/322M
SDI (BNC x1)*4: Conforms to Serial Digital Interface (270 Mb/s), ITU-R BT.656

Audio (ANALOGUE)

Audio (CH-1,2): XLR 3-pin female (2)

Signal Outputs

Video (ANALOGUE)

Ref. Video (BNC x1): 0.3 Vp-p, 75 Ω, sync negative
Video 1/2(SUPER) (BNC x2):
Composite, 1.0 Vp-p, 75 Ω, sync negative
Component (BNC x3)*1: Y: 1.0 Vp-p, 75 Ω, sync negative
R-Y: 0.7 Vp-p, 75 Ω (100 %)
B-Y: 0.7 Vp-p, 75 Ω (100 %)
S-Video (DIN 4-pin x1): Y: 1.0 Vp-p, 75 Ω, sync negative
C: 0.3 Vp-p, 75 Ω (at burst level)

Video (DIGITAL)

i.LINK (DV In/Out) (6-pin x1)*2 *5:
IEEE1394-based
SDTI(QSDI) (BNC x1)*3: Conforms to SDTI (270 Mb/s), SMPTE305M/322M
SDI (BNC x2)*4: Conforms to Serial Digital Interface (270 Mb/s), ITU-R BT.656

Audio (ANALOGUE)

Audio (CH-1,2 or CH-3,4): XLR 3-pin female (2)
Audio monitor (R/L): RCA phono jack (1)
Headphones: JM-60 stereo phone jack (1)

Time Code

Time code input: BNC (1)
Time code output: BNC (1)

LCD

LCD display (1) 6.4-inch VGA, 640 (H) x 480 (V)

Speaker

Built-in speaker (1) Monaural

Remote

RS-422A D-sub 9-pin (female) (1)

Others

DC 12 V input: XLR 4-pin (1)

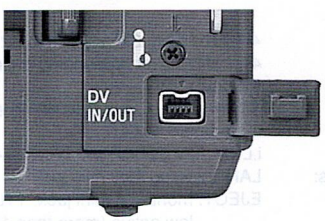
*1 Using optional DSBK-170 Analogue Component Input/Output Board
*2 Using optional DSBK-140 (i.LINK/DV Input/Output Board)
*3 Using optional DSBK-150 (SDTI(QSDI) Input/Output Board)
*4 Using an optional DSBK-160 (SDI Input/Output Board)
*5 Shared with input connector

DSR-V10P

DVCAM Video Walkman® Recorder

•Superb picture quality of the DVCAM format •Playback capability of DV recorded tapes (SP mode only) •40 minutes recording time with a mini-size cassette*1 •Compact and lightweight: 970 g (2 lb 2 oz) without battery and tape •Built-in 5.5-inch LCD monitor •InfoLITHIUM battery system: Lithium-ion battery power system that shows the amount of power remaining in the battery, to an accuracy of less than one minute •i.LINK (DV In/Out) interface providing a single cable connection to simultaneously transfer data and control signals as well as digital video and audio signals, with virtually no generation loss •LANC interface for simple editing with a LANC-equipped recorder or editing system •Assemble editing with up to 99 events x four programmes with the optional DSRM-E1P Edit Adaptor •Auto repeat function •Duplication mode with original time code •Hands-free shooting capability with the optional CVX-V1P/V3P/V18NSP Mini Camera

*1 The DSR-V10P accepts only mini-size DVCAM and DV cassettes.



Supplied Accessories:	AC-V700 AC Adaptor/Charger
	Carrying Belt
	Operating instruction manual
	i.LINK (DV) Cable
Optional Accessories:	DSRM-E1P
	CVX-V1P
	CVX-V3P
	CVX-V18NSP
	AC-V700 AC Adaptor/Charger
	VMC-IL4415 i.LINK Cable
	VMC-IL4435 i.LINK Cable
	VMC-IL4615 i.LINK Cable
	VMC-IL4635 i.LINK Cable

Specifications

GENERAL

Video signal system:	CCIR standard, PAL colour
Power requirements:	DC: 7.2 V (battery operation)
	DC: 8.4 V (AC adaptor operation)
Power consumption:	11.5 W (with LCD panel ON)
Operating temperature:	0 °C~40 °C (32 °F~104 °F)
Storage temperature:	-20 °C~60 °C (-4 °F~140 °F)
Tape speed:	28.2 mm/sec. (DVCAM mode)
LCD screen:	5.5-inch
Mass:	970 g (2 lb 2 oz)
	(without a tape and battery)
Dimensions:	148 (W) × 62 (H) × 135 (D) mm
	(5 7/8 × 2 1/2 × 5 3/8 inches)

VIDEO

Video Input/Output:

Composite (RCA phono jack x1):
1.0 Vp-p, 75 Ω, unbalanced, sync negative

S-Video (Mini-DIN 4-pin x1):
Y : 1.0 Vp-p, 75 Ω, unbalanced, sync negative
C : 0.3 Vp-p (subcarrier burst), 75 Ω, unbalanced

Digital Input/Output:

i.LINK (DV In/Out) 4-pin jack (x1), IEEE1394-based

AUDIO

Audio signals:	Recording:	48 kHz/16-bit, 32 kHz/12-bit,
	Playback:	48 kHz/16-bit, 32 kHz/12-bit,
		32 kHz/16-bit, 44.1 kHz/16-bit
Audio Input/Output:	RCA phono jack (2) (L, R):	
		-7.5 dBs, (0 dBu=0.775 Vrms)

OTHER CONNECTORS

LANC:	Stereo mini-mini jack
Headphone:	Stereo mini jack 8Ω
Camera/Editor connector:	
	20-pin

DRV-1000P

DVCAM Drive

•Superb picture quality of the DVCAM format •Playback capability of DV recorded tapes (SP mode only) •Designed to fit in a standard 5.25-inch disk drive PC bay •i.LINK (DV In/Out) interface providing a single cable connection to simultaneously transfer data and control signals as well as digital video and audio signals, with virtually no generation loss •LANC interface for simple editing with a LANC-equipped recorder or editing system •Analogue video and audio outputs •DC power operation

SPECIFICATIONS

GENERAL

Mass:	Approx. 1.4 kg (3 lb 1 oz)
Dimensions:	149.2 (W) × 42.8 (H) × 225 (D) mm (5 7/8 × 1 11/16 × 8 7/8) inches
Maximum Dimensions (unload):	149.2 (W) × 68.0 (H) × 305 (D) mm
Power Requirement:	+5 V: 5 A (Max) /700 mA (Stop) +12 V: 0.8 A (Max) /130 mA (loading/unloading)
Power Consumption:	+5 V: 25 VA (Max) +12 V: 9.6 VA (Max)
Operating Temperature:	5 °C ~ 40 °C (41 °F ~ 104 °F)
Storage Temperature:	-20 °C ~ 60 °C (-4 °F ~ 140 °F)
Tape Speed:	28.2 mm/s (DVCAM mode)

VIDEO

Video Signal:	CCIR standards, PAL colour
Video Output:	Composite (RCA pin): 1.0 Vp-p, 75 Ω, unbalanced, sync negative S-video (mini-DIN 4-pin): Y: 1.0Vp-p, 75 Ω, unbalanced, sync negative C: 0.3 Vp-p (subcarrier burst), 75 Ω, unbalanced

AUDIO

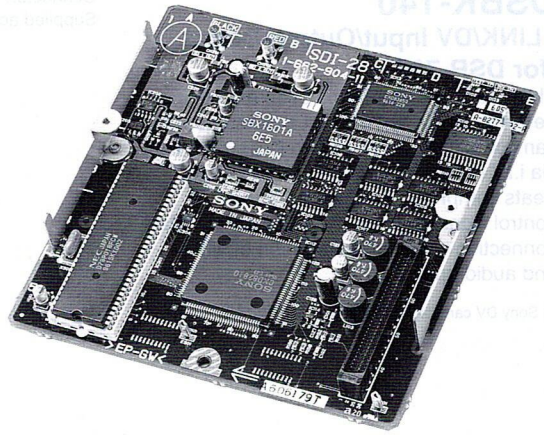
Audio Signals:	48 kHz/16-bit, 32 kHz/12-bit, 32 kHz/16-bit 44.1 kHz/16-bit (depending on input signals)
Output:	PIN jacks (2) (L, R)
Output Level:	327 mV with 47 kΩ load or more Impedance: 2.2 kΩ
Digital IN/OUT:	i.LNIK (DV IN/OUT), IEEE1394-based, 4-pin (1)
Other Connectors:	LANC: stereo mini-mini jack EJECT: monaural mini jack, TTL input low active (more than 100ms) DC IN: PC-standard, +5 V/12 V/GND
Supplied Accessories:	Operation manual (1) DV cable (4p - 4p, 50 cm) Stereo AV cable (1) S video cable (1) Mounting Screw (4)

DSBK-100P

SDI Output Board (for DSR-60P)

•When installed in the DSR-60P, this board enables digital video and audio signals in the D1 format to be output to other SDI equipped devices such as Digital BETACAM and Betacam SX •Conforms to Serial Digital Interface (270 Mb/s), ITU-R BT.656

Connector: Output : BNC (2)

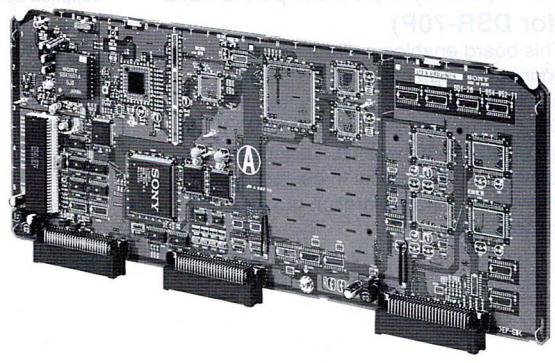


DSBK-110P

QSDI Output Board for (DSR-60P)

•When installed in the DSR-60P, this board enables SDTI (QSDI)-format digital video, audio and time code signals to be transferred to other SDTI (QSDI) equipped devices such as the DSR-2000P, DSR-80P, DSR-85P or EditStation •Conforms to SDTI (QSDI) format (270 Mb/s)

Connector: Output : BNC (1)



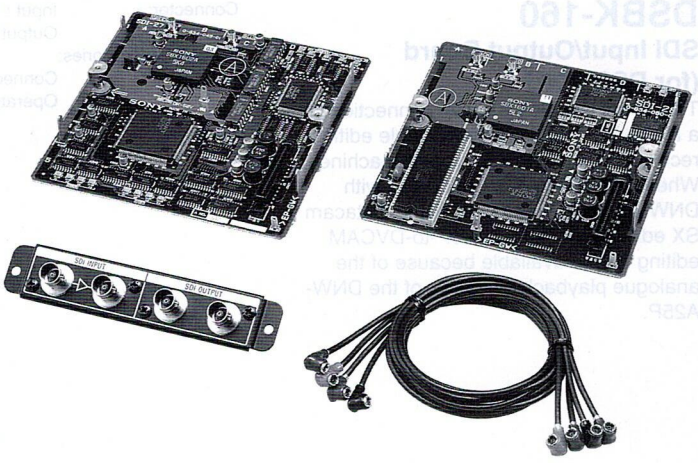
DSBK-120P

SDI Input/Output Board (for DSR-80P and DSR-85P)

•When installed in the DSR-80P or DSR-85P, this board enables digital video and audio signals in the D1 format to be input to the unit and output from other SDI equipped devices such as Digital BETACAM and Betacam SX

•Conforms to Serial Digital Interface (270 Mb/s), ITU-R BT.656

Connector: Input : BNC (2)
Output : BNC (2)

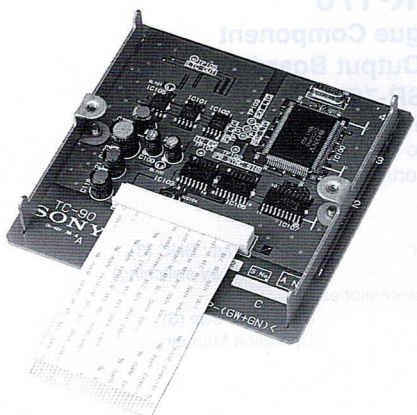


DSBK-130P

Time Code Input/Output Board (for DSR-60P, DSR-80P and DSR-85P)

•When installed in the DSR-60P, DSR-80P or DSR-85P, this board enables EBU-format time code to be input to the unit and output from other equipment

Connector: Input : BNC (1)
Output : BNC (1)



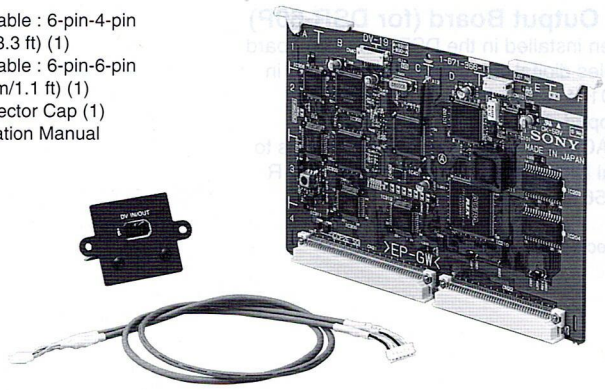
DSBK-140

i.LINK/DV Input/Output Board (for DSR-70P)

This board enables frame accurate editing between the DSR-70P and a consumer DV camcorder*1 or between two DSR-70P units via i.LINK interface. This i.LINK interface treats compressed DV audio/video and control signals, which allow the single cable connection with no deterioration of video and audio quality.

*1 Sony DV camcorders only

Connector: Input/Output : 6-pin (1)
Supplied accessories:
DV Cable : 6-pin-4-pin (1 m/3.3 ft) (1)
DV Cable : 6-pin-6-pin (35 cm/1.1 ft) (1)
Connector Cap (1)
Operation Manual

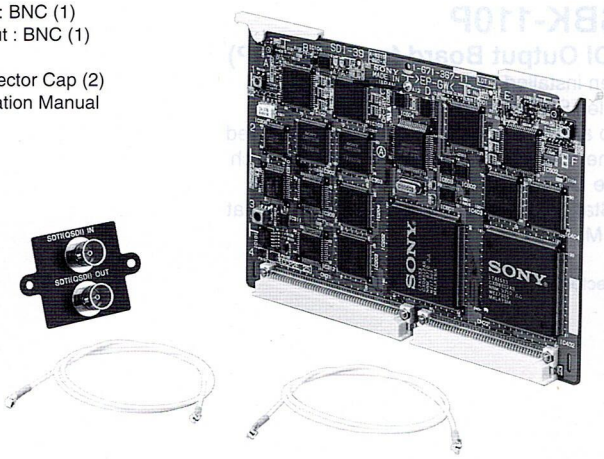


DSBK-150

SDTI (QSDI) Input/Output Board (for DSR-70P)

This board enables a direct digital connection with other SDTI (QSDI) equipped machines such as the DSR-2000P/85P/80P/60P DVCAM VTRs and EditStation systems. This interface also allows source material to be dubbed and edited with no deterioration of video and audio quality.

Connector: Input : BNC (1)
Output : BNC (1)
Supplied accessories:
Connector Cap (2)
Operation Manual

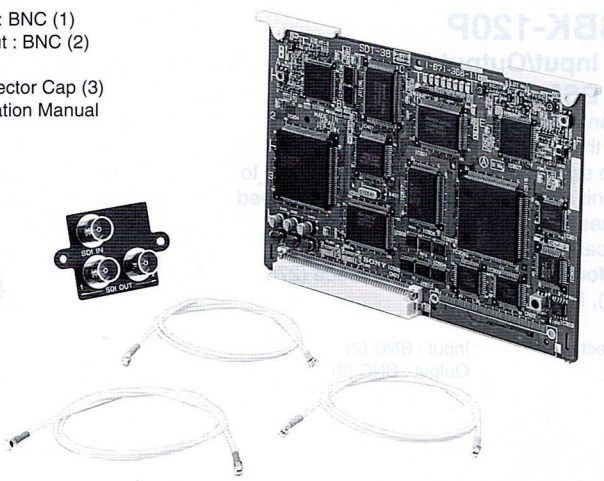


DSBK-160

SDI Input/Output Board (for DSR-70P)

This board enables a digital connection with a DNW-A25 Betacam SX portable editing recorder or other SDI-equipped machines. When the DSR-70P is connected with DNW-A25P, not only DVCAM-to-Betacam SX editing, but Betacam SP-to-DVCAM editing is also available because of the analogue playback capability of the DNW-A25P.

Connector: Input : BNC (1)
Output : BNC (2)
Supplied accessories:
Connector Cap (3)
Operation Manual



DSBK-170

Analogue Component Input/Output Board (for DSR-70P)

This board enables analogue component signals to be used to work with the conventional analogue component editing systems.

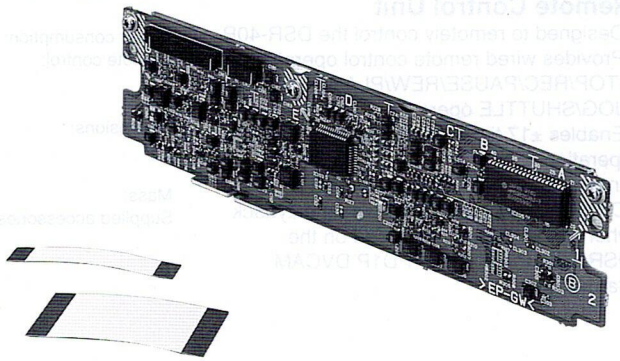
Connector: Input/Output : BNC (3) (selectable by switching)
Supplied accessories:
Connector Cap (3)
Operation Manual

DSBK-180P

Dual Video Input Board (for DSR-70P)

This board enables two cameras to be connected to the DSR-70P via analogue composite with reference video signal. The output of either one is selected to be recorded.

Supplied accessory: Operation Manual



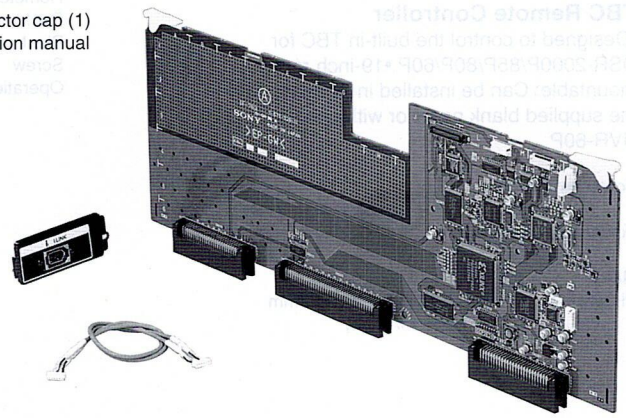
DSBK-190

i.LINK/DV Input/Output Board (for DSR-2000P)

This board enables frame accurate editing between the DSR-2000P and the DSR-500WSP DVCAM Camcorder, DSR-70P DVCAM Portable Editing Recorder or a consumer DV camcorder*1 via i.LINK interface.
This i.LINK interface treats compressed DV audio/video and control signals, which allow the single cable connection with no deterioration of video and audio quality.

Connector: Input/Output: 6-pin (1)
Supplied accessories:
Connector cap (1)
Operation manual

*1 Sony DV camcorders only



DSBK-200

Control Panel (for DSR-2000P)

Designed to remotely control the DSR-2000P from a distance of up to 10 metres (approx. 33 ft.).

DSRM-10

Remote Control Unit

•Designed to remotely control the DSR-85P/80P/60P •Provides wired remote control operation for STOP/REC/PAUSE/REW/PLAY/FFWD •JOG/SHUTTLE operation •Enables ±16 times normal speed in search operation

Specifications

Power requirements:	DC 5 V (supplied from the connected VTR)
Power consumption:	50 mW
Remote control:	Stereo mini-plug (with attached cable, length 3 m (10ft))
Dimensions:	90 (w) × 46 (h) × 182 (d) mm ($3^{5}/_{8} \times 1^{13}/_{16} \times 7^{1}/_{4}$ inches)
Mass:	Approx. 360 g (12oz)
Supplied accessory:	Operating instructions

DSRM-20

Remote Control Unit

•Designed to remotely control the DSR-40P
•Provides wired remote control operation for STOP/REC/PAUSE/REW/PLAY/FFWD
•JOG/SHUTTLE operation
•Enables ±17 times normal speed in search operation
•Index/Date/Photo search function
•Displays tape information during playback when using the tape recorded on the DSR-200AP/PD100AP/PD1P DVCAM Camcorders.

Specifications

Power requirements:	DC 5 V (supplied from the DSR-40P)
Power consumption:	50 mW
Remote control:	Stereo mini-plug (with attached cable, length 3 m (10 ft))
Dimensions:	90 (w) x 46 (h) x 182 (d) mm (3 5/8 x 1 13/16 x 7 1/4 inches)
Mass:	Approx. 360 g (12 oz)
Supplied accessories:	
	Operating instructions

UVR-60P

TBC Remote Controller

•Designed to control the built-in TBC for DSR-2000P/85P/80P/60P •19-inch rack mountable: Can be installed individually with the supplied blank panel or with another UVR-60P

Power requirements:
DC 12 V, 9 V (supplied from VTR)
Power consumption:
840 mW
Mass: 1.3 kg (2 lb 13 oz)
Dimension: 215 (W) × 44 (H) × 101 (D) mm (8 1/2 × 1 3/4 × 4 inches)

Supplied accessories:
Remote control cable (5 m)
Rack mount bracket
Blank panel
Screw
Operation manual

RMM-130

Rack Mount Kit

•Designed for use in mounting the DSR-2000P/85P/80P/60P into 19-inch rack

BKNW-121

Control Panel Case

Case for the DSBK-200 Control Panel

BKNW-225

Docking Kit

This docking kit enables two DSR-70P units or the DSR-70P and DNW-A25P to be docked together. This configuration provides VTR-to-VTR editing with Jog/Shuttle dial operation.

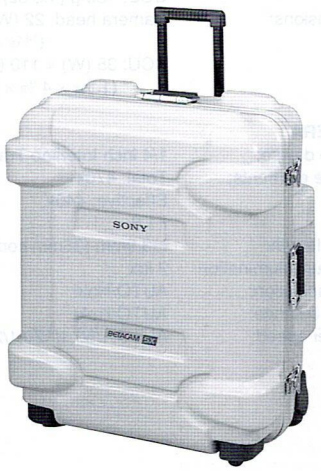
Supplied accessories:

Carrying Handle (1)
BNC Cable (34 cm/1.1 ft) (1)
9-pin Remote Cable (34 cm/1.1 ft) (1)
Joint Panels with Screws (3)

LC-DN220

Carrying Case (Hard type)

•Carrying case for two DSR-70P units or the DSR-70P and DNW-A25P



DSRM-E1P

Edit Adaptor

•Direct connection to the DSR-V10P via a 20-pin connector •Controls LANC VTRs as players (DSR-PD1P/ DSR-20P/ DSR-30P) •Built-in Jog/Shuttle dial •Assemble editing with up to 99 events x 4 programmes

GENERAL

Power requirements:	DC:7.2 V (supplied from the DSR-V10P)
	DC:8.4 V (AC adaptor operation)
Power consumption:	Approx. 1.8 W
Operating temperature:	
	0 °C to 40 °C (32 °F~104 °F)
Storage temperature:	-20 °C to 60 °C (-4 °F~140 °F)
Mass:	Main Unit: 160 g (5.6 oz)
	Controller: 340 g (12 oz)
Dimensions:	
Main Unit:	134.4 (W) × 69.2 (H) × 60.6 (D) mm (5 3/8 × 2 3/4 × 2 1/2 inches)
Controller:	128.1 (W) × 184 (H) × 42 (D) mm (5 1/8 × 7 1/4 × 1 11/16 inches)

CONNECTORS

DSR-V10P:	20-pin
Control Unit:	Mini DIN 8-pin
LANC:	Stereo mini-mini jack

MONITOR OUTPUT

Video Output:	Composite (RCA phono jack (1)): 1.0 V p-p, 75 Ω, unbalanced, sync negative
Audio Output:	RCA phono jack (2) (L, R): 327 mV, impedance 470 Ω or less

CVX-V1P

Colour Video Camera

•Thumb-sized and lightweight (Camera head: 25 g, CCU: 135 g) •1/4-inch CCD Camera (470k pixels) •Directly attached to the Video Walkman 20-pin connector (via the supplied Video Walkman Attachment) •F1.8/f=3.9mm lens with manual focus/iris •Cable length : 2m

Supplied Accessories: Video Walkman Attachment Unit
Operating Instruction Manual

GENERAL

Video signal: CCIR standards, PAL colour
Power requirements: DC: 7.2V (battery operation)
DC: 8.4V (AC adaptor operation)
Power consumption: 1.8 W
Operating temperature: 0°C~40°C (32°F~104°F)
Storage temperature: -20°C~60°C (-4°F~140°F)
Mass: Camera Unit: 25 g (0.85 oz)
CCU: 135 g (4.8 oz) (without a battery)
Dimensions: Camera head: 22 (W) × 18 (H) × 60 (D) mm
($1\frac{1}{16} \times \frac{23}{32} \times 2\frac{3}{8}$ inches)
CCU: 35 (W) × 110 (H) × 60 (D) mm
(1 7/16 × 4 3/8 × 2 3/8 inches)

CAMERA

Image device: 1/4 inch Interline Transfer CCD
Picture elements: Total: 470k
Effective: 440k
Lens: F1.8
Focal length: f=3.9mm (35mm conversion : 38mm)
Minimum illumination: 2 lux
Gain selection: AUTO/Hold
White balance: AUTO/Hold
Shutter speed: AUTO,1/50,1/120,1/250,1/500,1/2000,1/10000

VIDEO

Video Output (on CCU):
Composite (RCA pin(1))
1 V p-p, 75 Ω, unbalanced, sync negative
S-Video (Mini DIN 4-pin(1))
Y : 1 Vp-p, 75Ω, unbalanced, sync negative
C : 300 m Vp-p (subcarrier burst), 75Ω, unbalanced

AUDIO

Audio Input/Output (RCA phono jack (2)(L, R)):
-7.5 dBs, (0 dBs=0.775 Vrms)

OTHER CONNECTORS (on CCU)

External mic IN: Stereo mini-mini jack(1)
Multi connector: 20 pin(1)
Battery connector

CVX-V3P

Colour Video Camera

•Small and lightweight (Camera head: 75 g, CCU: 135 g) •1/4-inch CCD camera (470k pixels) • x3 Zoom lens •Built-in stereo microphone •Splash-proof camera head •Directly attached to the Video Walkman 20-pin connector (via the supplied Video Walkman Attachment) •Cable length : 2m

Supplied Accessories: Video Walkman Attachment Unit
Operating Instruction Manual

GENERAL

Video signal system: CCIR standards, PAL colour
Power requirements: DC: 7.2 V (battery operation)
DC: 8.4 V (AC adaptor operation)
Power consumption: 1.8 W
Operating temperature: 0°C ~ 40°C (32°F ~ 104°F)
Storage temperature: -20°C ~ 60°C (-4°F ~ 140°F)
Mass: Camera head: 75 g (2.6 oz)
CCU: 135 g (4.8 oz)(without a battery)
Dimensions: Camera head: 36 (W) x 40 (H) x 70 (D) mm
(1 7/16 × 1 5/8 × 2 7/8 inches)
CCU: 35 (W) × 110 (H) × 60 (D) mm
(1 7/16 × 4 3/8 × 2 3/8 inches)

CAMERA

Image device: 1/4-inch Interline Transfer CCD
Picture elements: Total: 470k
Effective: 440k
Lens F 2.8~4
Focal length: f=3.5 mm ~10.5 mm
(35 mm conversion : 35mm ~ 105mm)
Minimum illumination: 5 lux
Gain selection: AUTO
White balance: AUTO

VIDEO

Video Output (on CCU):
Composite (RCA pin(1))
1 V p-p, 75 Ω, unbalanced, sync negative
S-Video (Mini DIN 4-pin(1))
Y : 1 Vp-p, 75 Ω, unbalanced, sync negative
C : 300 m Vp-p (subcarrier burst), 75 Ω, unbalanced

AUDIO

Audio Input/Output (RCA phono jack (2)(L, R)):
-7.5 dBs, (0 dBs=0.775 Vrms)

OTHER CONNECTORS (on CCU)

External mic IN: Stereo mini-mini jack(1)
Multi connector: 20 pin(1)
Battery connector

CVX-V18NSP

Colour Video Camera

•NightShot™ function which enables recording in 0 lux conditions •1/4-inch precision CCD •Independent camera head and compact CCU •CCU directly attachable to the DSR-V10P DVCAM Video Walkman® •Built-in 18x zoom lens •Manual camera controls via CCU: Focus, Shutter speed, Exposure •Date/Time or Title superimposed onto image •SteadyShot® •Long-life lithium-ion battery system

Supplied accessories:	Walkman attachment unit Operation manual
Optional accessories:	NP-F530/F550/F730/F750/F930/F950 Rechargeable Battery Pack AC-V700 AC Adaptor/Charger AC-VQ800 AC Adaptor/Charger DC-V700 DC Adaptor/Charger DC-VQ800 DC Adaptor/Charger CCN-10 Camera Cable (10 m)

Specifications

GENERAL

Video signal:	CCIR standards, PAL colour
Power requirements:	DC: 7.2 V (battery operation) DC: 8.4 V (AC adaptor)
Power consumption:	2.2 W (using the IR light, 3.2 W)
Operating temperature:	0 °C to 40 °C (32 °F to 104 °F)
Storage temperature:	-20 °C to 60 °C (-4 °F to 140 °F)
Mass:	Camera Unit: 343 g (12 oz) CCU: 153 g (5 oz)(without a battery)
Dimensions:	Camera head: 63(W) × 66(H) × 115(D) mm ($2\ 1/2 \times 2\ 5/8 \times 4\ 5/8$ inches) CCU: 50(W) × 59(H) × 110(D) mm ($2 \times 2\ 3/8 \times 4\ 3/8$ inches)

CAMERA

Image device:	1/4-inch Interline Transfer CCD
Picture element:	Gross: 570 k Actual: 360 k
Lens:	F1.4
Focal length:	f=4.1~73.8 (35 mm conversion: 41~738 mm)
Filter diameter:	ø37 mm
Focus:	Auto, Manual, Infinity
Minimum illumination:	0.7 lux
Shutter speed:	AUTO, 1/3, 1/6, 1/12, 1/25, 1/50, 1/75, 1/100, 1/125, 1/150, 1/215, 1/300, 1/425, 1/600, 1/1000, 1/1250, 1/1750, 1/2500, 1/3500, 1/6000, 1/10000
NightShot:	IR light effective distance: 20 m (w/ slow shutter ON) 5 m (w/o slow shutter)

VIDEO

Video Output (on CCU):

Composite (x1) (RCA pin):
1.0 V p-p, 75 Ω, unbalanced, sync negative

YC (x1) (Mini DIN 4-pin):
Luminance signal: 1.0 Vp-p, 75 Ω, unbalanced, sync negative
Chrominance signal: 300 mVp-p (subcarrier burst), 75 Ω, unbalanced

AUDIO

Audio Output (on CCU):	RCA pin jack (2)(L & R): -7.5 dBs (0 dBs=0.775 Vrms)

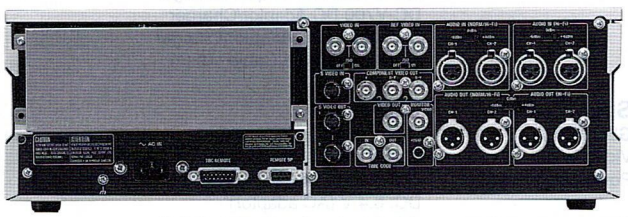
OTHER CONNECTORS (on CCU):

External Mic IN:	Stereo mini jack (plug in power)
Multi connector:	20-pin(connecting to Video Walkman)
Camera cable connector:	12-pin(connecting to camera head cable)
Battery connector	

SVO-5800P

Editing Recorder

•Superb picture quality with S-VHS recording format and high quality signal processing techniques such as Digital Noise Reducer, Digital Field Dropout Compensator, Digital 3-line Comb Filter and newly developed Chroma Process Improvement •Built-in Time Base Corrector •Four channel audio recording system; two for Hi-Fi (AFM) and two for normal longitudinal audio •Dolby B type Noise Reducer for normal audio •Frame accurate full editing functions (Assemble, video/audio insert and audio split) •Back space editing capability •Built-in EBU standard LTC/VITC time code generator/reader •Optional UVR-60P TBC Remote Controller •Field freeze function with the optional UVR-60P or SVRM-100A Remote Control Unit •RS-422A 9-pin interface •Automatic edit select system •Automatic S-VHS record mode •S-video signal IN/OUT •Composite video signal IN/OUT •Y/R-Y/B-Y component video signal OUT with the optional SVBK-170P Component Output Board •Built-in character generator to display VTR status, time code, set-up menu and error message •Quick and smooth picture search up to 15 times normal speed in forward and reverse •User friendly initial set-up menu for a variety of customized VTR mode operations •Cue up point preset •Auto head cleaner •Compact and lightweight (3 units high, approx 11.5 kg), 19-inch rack mountable •Very low power consumption (60W)



Supplied accessories:	AC power cord Operation manual
Optional accessories:	Component output board SVBK-170P Remote control unit SVRM-100A TBC remote controller UVR-60P Rack mount kit RMM-980 Remote control cable RCC-5G/10G/30G (5 m/10 m/30 m) S-video cable SYC-2/5 (2 m/5 m)

Specifications

General

Mass:	11.5 kg (25 lb 6 oz)
Dimensions:	425 (W) × 145 (H) × 457 (D) mm ($16\frac{3}{4} \times 5\frac{3}{4} \times 18$ inches)
Power requirements:	AC 220 to 240V, 50Hz, 3 wire grounded receptacle
Power consumption:	60W
Operating temperature:	5 to 40°C (41 to 104°F)
Tape speed:	23.39 mm/s
Tape format:	S-VHS or VHS
F FWD and REW time:	Approx. 2.5min (with SE-180)
Search speed (with optional SVRM-100A)*1:	SHUTTLE: STILL, 1/10*2, 1/5, 1/2, 1, 2, 5, 15 times normal speed, forward and reverse JOG: Frame by frame, forward and reverse

Video

Video signal system:	PAL (colour)/ CCIR (monochrome)
Video recording system:	Rotary two-head helical scanning FM system
Input:	REF VIDEO IN (BNC (2), loop-through): Black burst or 1.0Vp-p, 75Ω, unbalanced, sync negative COMPOSITE IN (BNC (2), loop-through): 1.0Vp-p, 75Ω, unbalanced, sync negative S-VIDEO IN (Mini DIN 4-pin): Y; 1.0Vp-p, 75Ω, unbalanced, sync negative C; 0.3Vp-p (burst), 75Ω, unbalanced
Output:	COMPOSITE OUT (BNC): 1.0Vp-p, 75Ω, unbalanced, sync negative S-VIDEO OUT (Mini DIN 4-pin (2)): Y; 1.0Vp-p, 75Ω, unbalanced, sync negative C; 0.3Vp-p (burst), 75Ω, unbalanced COMPONENT OUT (BNC (3), with optional SVBK-170P): Y; 1.0Vp-p, 75Ω, unbalanced, sync negative R-Y; 0.7Vp-p, 75Ω, unbalanced B-Y; 0.7Vp-p, 75Ω, unbalanced VIDEO MONITOR OUT (Super) (BNC): 1.0Vp-p, 75Ω, unbalanced, sync negative
Horizontal resolution:	VHS: More than 240TV lines S-VHS: More than 400TV lines
S/N ratio:	More than 46dB (in S-VHS/VHS mode)

Audio

Input:	Normal CH-1/2 (XLR): +4/0/–6dBm selectable, 600Ω, balanced Hi-Fi CH-1/2 (XLR): +4/0/–6dBm selectable, 600Ω, balanced
Output:	Normal CH-1/2 (XLR): +4/0/–6dBm selectable at 600Ω load, low impedance, balanced Hi-Fi CH-1/2 (XLR): +4/0/–6dBm selectable at 600Ω load, low impedance, balanced AUDIO MONITOR OUT (PIN): –5dBu, at 47kΩ load, unbalanced HEAD PHONE OUT (STEREO PHONE): –50 to –18dBu at 8Ω load unbalanced
S/N ratio (Normal audio at 3% distortion, Dolby OFF):	More than 43dB
Frequency response:	Normal: 50Hz to 12kHz Hi-Fi: 20Hz to 20kHz
Dynamic range:	More than 90dB (in Hi-Fi mode)

Others

TIME CODE IN (BNC):	0dBu ±6dB, 10kΩ, unbalanced (0dBu=1.55Vp-p PULSE)
TIME CODE OUT (BNC):	0dBu ±3dB at 10kΩ load, unbalanced (0dBu=1.55Vp-p PULSE)

Remote

TBC REMOTE:	15-pin multi
REMOTE:	9-pin multi, RS-422A standards
WIRED SIRCS:	Control-S (Power supplied type)

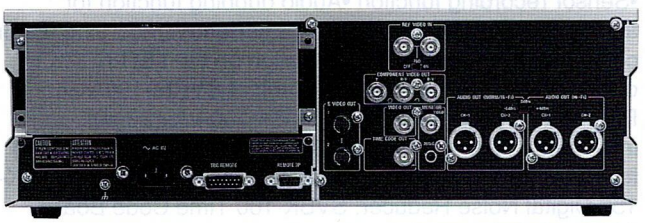
*1 Without the SVRM-100A attached, search speed is conducted at ±15 times normal speed by continuously pushing the F FWD or REW button.
*2 When controlled from an RS-422A equipped editing controller, the minimum search speed is achieved at ±1/20 times normal speed.

SVP-5600P

S-VHS

Editing Player

•Superb picture quality with S-VHS recording format and high quality signal processing techniques such as Digital Noise Reducer, Digital Field Dropout Compensator, Digital 3-line Comb Filter and newly developed Chroma Process Improvement •Built-in Time Base Corrector •Four channel audio playback system; two for Hi-Fi (AFM) and two for normal longitudinal audio •Dolby B type Noise Reducer for normal audio •Built-in EBU standard LTC/VITC time code reader •Optional UVR-60P TBC Remote Controller •Field freeze function with the optional UVR-60P or SVRM-100A Remote Control Unit •RS-422A 9-pin interface •S-video signal OUT •Composite video signal OUT •Y/R-Y/B-Y component video signal OUT with the optional SVBK-170P Component Output Board •Built-in character generator to display VTR status, time code, set-up menu and error message •Quick and smooth picture search up to 15 times normal speed in forward and reverse •User friendly initial set-up menu for a variety of customized VTR mode operations •Cue up point preset •Auto head cleaner •Compact and lightweight (3 units high, approx 11.5 kg), 19-inch rack mountable •Very low power consumption (53W)



Supplied accessories:	AC power cord Operation manual
Optional accessories:	Component output board SVBK-170P Remote control unit SVRM-100A TBC remote controller UVR-60P Rack mount kit RMM-980 Remote control cable RCC-5G/10G/30G (5 m/10 m/30 m) S-video cable SYC-2/5 (2 m/5 m)

Specifications

General

Mass:	11.5 kg (25 lb 6 oz)
Dimensions:	425 (W) × 145 (H) × 457 (D) mm ($16^3/_4 \times 5^3/_4 \times 18$ inches)
Power requirements:	AC 220 to 240V, 50Hz, 3 wire grounded receptacle
Power consumption:	53W
Operating temperature:	5 to 40°C (41 to 104°F)
Tape speed:	23.39 mm/s
Tape format:	S-VHS or VHS
F FWD and REW time:	Approx. 2.5min (with SE-180)
Search speed (with optional SVRM-100A)*1:	SHUTTLE: STILL, 1/10*2, 1/5, 1/2, 1, 2, 5, 15 times normal speed, forward and reverse JOG: Frame by frame, forward and reverse

Video

Video signal system:	PAL (colour)/ CCIR (monochrome)
Input:	REF VIDEO IN (BNC (2), loop-through): Black burst or 1.0Vp-p, 75Ω, unbalanced, sync negative
Output:	COMPOSITE OUT (BNC): 1.0Vp-p, 75Ω, unbalanced, sync negative S-VIDEO OUT (Mini DIN 4-pin (2)): Y; 1.0Vp-p, 75Ω, unbalanced, sync negative C; 0.3Vp-p (burst), 75Ω, unbalanced COMPONENT OUT (BNC (3), with optional SVBK-170P): Y; 1.0Vp-p, 75Ω, unbalanced, sync negative R-Y; 0.7Vp-p, 75Ω, unbalanced B-Y; 0.7Vp-p, 75Ω, unbalanced VIDEO MONITOR OUT (Super) (BNC): 1.0Vp-p, 75Ω, unbalanced, sync negative
Horizontal resolution:	VHS: More than 240TV lines S-VHS: More than 400TV lines
S/N ratio:	More than 46dB (in S-VHS/VHS mode)

Audio

Output:	Normal CH-1/2 (XLR): +4/0/–6dBm selectable at 600Ω load, low impedance, balanced Hi-Fi CH-1/2 (XLR): +4/0/–6dBm selectable at 600Ω load, low impedance, balanced AUDIO MONITOR OUT (PIN): –5dBu, at 47kΩ load, unbalanced HEAD PHONE OUT (STEREO PHONE): –50 to –18dBu at 8Ω load unbalanced
S/N ratio (Normal audio at 3% distortion, Dolby OFF):	More than 43dB
Frequency response:	Normal: 50Hz to 12kHz Hi-Fi: 20Hz to 20kHz
Dynamic range:	More than 90dB (in Hi-Fi mode)

Others

TIME CODE OUT (BNC):	0dBu ±3dB at 10kΩ load, unbalanced (0dBu=1.55Vp-p PULSE)

Remote

TBC REMOTE:	15-pin multi
REMOTE:	9-pin multi, RS-422A standards
WIRED SIRCS:	Control-S (Power supplied type)

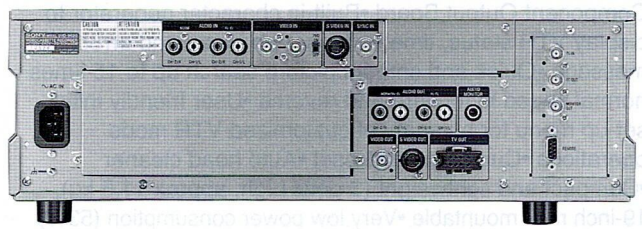
*1 Without the SVRM-100A attached, search speed is conducted at ±15 times normal speed by continuously pushing the F FWD or REW button.
*2 When controlled from an RS-422A equipped editing controller, the minimum search speed is achieved at ±1/20 times normal speed.

SVO-9620 (PAL/NTSC4.43)

S-VHS

Recorder

•High quality SVHS picture and sound •PAL/NTSC4.43 playback capability •Four channel audio recording system; two for Hi-Fi (AFM) and two for normal longitudinal audio •Dolby B type Noise Reducer for normal audio •Auto head cleaner to provide preventive care of the tape heads •Dial menu operations via the search dial for a variety of customized VTR mode settings •Recognizable colour pictures over a range of -1/30 to +5 (-10 to +10 with the optional DSRM-10) times normal speed in search mode; frame by frame picture search with the JOG dial •Programmed operation with MARK IN A and MARK IN B •Timer Rec and Play function for unattended operations •Sensor recording function •Audio dubbing function for additional audio, such as music or narration, recording •Error code and real time counter indication on the LED display •Optional remote control unit of SVRM-100A and RM-V200 •Optional interface: SVBK-100A for 33-pin interface, SVBK-120 for RS-232C interface, and SVBK-140 for RS-422A 9-pin remote interface •Optional boards: SVBK-150 Digital Noise Reducer, SVBK-160 Time Code Board, SVBK-180P RS-232C Interface Board



Supplied Accessories:	AC power cord
	Instruction manual
Optional Accessories:	33-pin interface board SVBK-100
	Computer interface board (RS-232C) SVBK-120
	RS-422A interface board SVBK-140
	Digital noise reducer SVBK-150
	Time code board SVBK-160
	RS-232C Interface board SVBK-180P
	Remote control unit DSRM-10
	Remote control unit RM-V200
	Rack mount kit RMM-980

Specifications

General

Mass:	14.0 kg (30 lb 14 oz)
Dimensions:	424 (W) × 147 (H) × 452 (D) mm
	($16^{3}/_{4} \times 5^{7}/_{8} \times 17^{7}/_{8}$ inches)
Power requirements:	AC 220 to 240V, 50/60Hz
Power consumption:	Less than 55W
Operating temperature:	5 to 40°C (41 to 104°F)
REC/PB mode:	SP
Tape Speed:	SP: 23. 39mm/s
Tape format:	S-VHS or VHS
F FWD and REW time:	Max. 2min (with SE-120)

Video

Video signal system:	PAL and NTSC4.43 Colour
Video recording system:	Rotary two-head helical scanning FM system
Input:	BNC: 1.0Vp-p, 75Ω, sync negative
	S-VIDEO: Mini DIN 4-pin
	Y: 1.0Vp-p, 75Ω, sync negative
	C: 0.3Vp-p, at burst level, 75Ω
Output:	BNC: 1.0Vp-p, 75Ω, sync negative
	S-VIDEO: Mini DIN 4-pin
	Y: 1.0Vp-p, 75Ω, sync negative
	C: 0.3Vp-p, at burst level, 75Ω
Horizontal resolution:	More than 400TV lines (S-VHS)
	More than 240TV lines (VHS)
S/N ratio:	45dB (colour)

Audio

Input:	Phono: –6dBu, 47kΩ, unbalanced
Output:	Phono: –6dBu, 10kΩ, unbalanced
Monitor Output:	Phono: –5dBu, 10KΩ
Frequency response:	50Hz to 12kHz (in normal mode)
	20Hz to 20kHz (in Hi-Fi mode)
Dynamic range:	90dB (in Hi-Fi mode)

Connectors

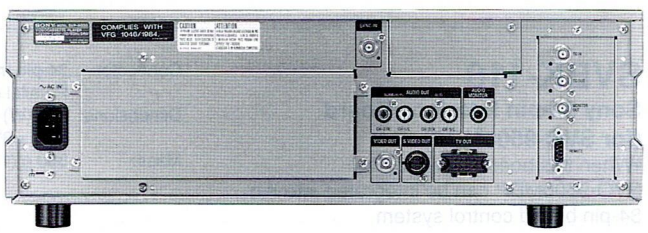
Video:	IN (1) with loopthrough out (BNC)
	OUT (1) (BNC)
	SYNC IN (1) (BNC)
Audio:	Hi-Fi (AFM) IN (2) (Phono)
	NORMAL IN (2) (Phono)
	Hi-Fi (AFM) OUT (2) (Phono)
	NORMAL OUT (2) (Phono)
	Monitor OUT (1) (Phono)
S VIDEO:	IN (1) (Mini DIN 4-pin)
	OUT (1) (Mini DIN 4-pin)
TV connector:	OUT (1) (8-pin)

SVP-9020 (PAL/NTSC4.43)

S-VHS

Player

•High quality SVHS pictuer and sound •PAL/NTSC4.43 playback capability •Four channel audio playback system: two for Hi-Fi (AFM) and two for normal longitudinal audio •Doldy B type Noise Reducer for normal audio •Auto head cleaner to provide preventive care of the tape heads •Dial menu operation via the search dial for a vairiety of customize VTR mode setting •Recognizable colour pictures over a range of/10to +10 times normal speed in search mode;frame by frame pictuer search with the JOG dial •Programmed operation with MARK IN A and MARK IN B •TimerRec and Play function for nuattended operation •Error code and real time counter indication on the LED display •Optional remote contrrol unit of SVRM-100A and RM-V200 •Optional interface:SVBK-100 for 33-pin interface, SVBK-120 for RS-232C interface, and SVBK-140 for RS-422A 9-pin remote interface •Optional SVBK-160Time Code Board and SVBK-180P RS-232C Interface Board



Supplied Accessories:	AC power cord
	Instruction manual
Optional Accessories:	33-pin interface board SVBK-100
	Computer interface board (RS-232C) SVBK-120
	RS-422A interface board SVBK-140
	Digital noise reducer SVBK-150
	Time code board SVBK-160 RS232C
	Interface Board SVBK-180P
	Remote control unit DSRM-10
	Remote control unit RM-V200
	Rack mount kit RMM-980

Specifications

General

Mass:	14.0 kg (30 lb 14 oz)
Dimensions:	424 (W) × 147 (H) × 452 (D) mm ($16^3/_4 \times 5^7/_8 \times 17^7/_8$ inches)
Power requirements:	AC 220 to 240V, 50/60Hz
Power consumption:	Less than 55W
Operating temperature:	5 to 40°C (41 to 104°F)
REC/PB mode:	SP
Tape Speed:	SP: 23.39mm/s
Tape format:	S-VHS or VHS
F FWD and REW time:	Max. 2min (with SE-120)

Video

Video signal system:	PAL and NTSC4.43 Colour
Video recording system:	Rotary two-head helical scanning FM system
Input:	BNC: 1.0Vp-p, 75Ω, sync negative
	S-VIDEO: Mini DIN 4-pin
	Y: 1.0Vp-p, 75Ω, sync negative
	C: 0.3Vp-p, at burst level, 75Ω
Output:	BNC: 1.0Vp-p, 75Ω, sync negative
	S-VIDEO: Mini DIN 4-pin
	Y: 1.0Vp-p, 75Ω, sync negative
	C: 0.3Vp-p, at burst level, 75Ω
Horizontal resolution:	More than 400TV lines (S-VHS)
	More than 240TV lines (VHS)
S/N ratio:	45dB (colour)

Audio

Output:	Phono: –6dBu, 10kΩ, unbalanced
Monitor Output:	Phono: –5dBu, 10KΩ
Frequency response:	50Hz to 12kHz (in normal mode)
	20Hz to 20kHz (in Hi-Fi mode)
Dynamic range:	90dB (in Hi-Fi mode)

Connectors

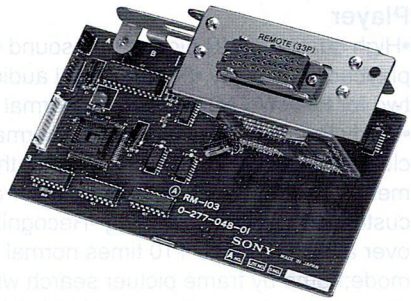
Video:	OUT (1) (BNC)
	SYNC IN (1) (BNC)
Audio:	Hi-Fi (AFM) IN (2) (Phono)
	NORMAL IN (2) (Phono)
	Monitor OUT (1) (Phono)
S VIDEO:	OUT (1) (Mini DIN 4-pin)
TV connector:	OUT (1) (8-pin)

SVBK-100

Sony 33-pin Interface Board (for SVO-9620/9500MDP and SVP-9020)

•When this board installed, VTR functions can be remotely controlled via 33-pin parallel interface

Connector: 33-pin multi connector (1)
Parallel control signal
Dimensions: 168 (W) × 92 (H) × 60 (D) mm
($6^5/_8 \times 3^5/_8 \times 2^3/_8$inches)
Mass: 330 g (11 oz)

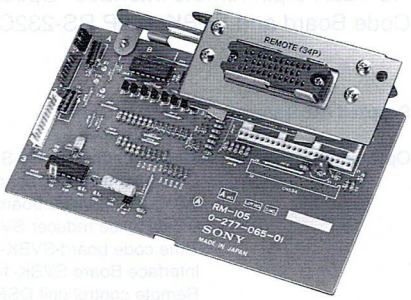


SVBK-110

Sony 34-pin Interface Board (for SVO-9500MDP)

•When this board installed, the SVO-9500MDP can be integrated into the 34-pin based control system

Connector: 34-pin multi connector (1)
Parallel control signal
Dimensions: 168 (W) × 92 (H) × 60 (D) mm
($6^5/_8 \times 3^5/_8 \times 2^3/_8$inches)
Mass: 300 g (11 oz)

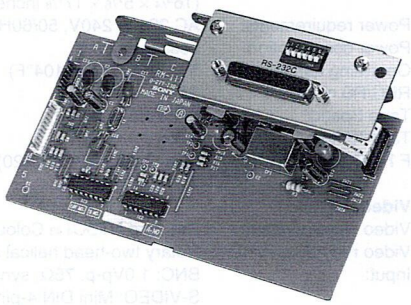


SVBK-120

Computer Interface Board (for SVO-9620/9500MDP and SVP-9020)

•Provides RS-232C interface which enables direct control of a VTR from an external computer

Connector: D-sub 25-pin multi connector (1)
Parallel control signal
Dimensions: 168 (W) × 92 (H) × 60 (D) mm
($6^5/_8 \times 3^5/_8 \times 2^3/_8$inches)
Mass: 300 g (11 oz)

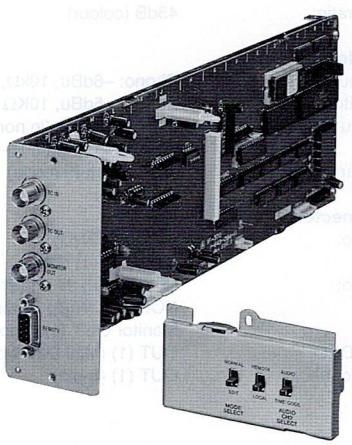


SVBK-140

Sony RS-422A Interface Board for SVO-9620 and SVP-9020

•By installing this board, the SVO-9620/ SVP-9020 can be equipped with 9-pin REMOTE (RS-422A) interface to be configured into Sony's 9-pin based control system

Input/output connector:
TC IN: BNC (1)
0dB±6dB (0dB=1.55Vp-p)
10kΩ, unbalanced
TC OUT: BNC (1)
0dB±3dB, low impedance, unbalanced
MONITOR OUT: BNC (1)
Supplied accessories: Screw
Operation manual

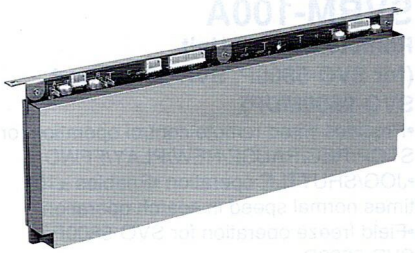


SVBK-150

Sony Digital Noise Reducer Board (for SVO-9620 and SVP-9020)

•Reduces both Y (luminance) and C (chrominance) noise with its YNR (noise reducer) and CNR
•Provides Y Enhance function, TBS (Time Base Stabilizer), and Field dropout compensation

Dimensions: 318 (W) × 106 (H) × 26 (D) mm ($12^{5}/_{8} \times 4^{1}/_{4} \times 1^{1}/_{16}$ inches)
Mass: 370 g (13 oz)
Supplied accessories: Operation manual

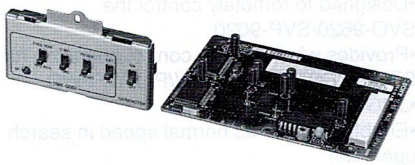


SVBK-160

Sony Time Code Board (for SVO-9620 and SVP-9020)

•Attaches to the SVBK-140 RS-422A Interface Board
•When this board installed, the VTR can record (SVO-9620 only) and read the EBU time code
•Consists of the following components: TC-69 board/Switch panel/Flat cable

Applicable time code: SMPTE or EBU longitudinal time code (LTC)
Drop frame (NTSC mode only): Drop frame or non-drop frame selectable
Dimensions: Board: 118.5 (W) × 85 (H) × 10 (D) mm ($4^{3}/_{4} \times 3^{3}/_{8} \times 1^{3}/_{32}$ inches)
Panel: 85 (W) × 52.5 (H) × 13 (D) mm ($3^{3}/_{8} \times 2^{1}/_{8} \times 1^{7}/_{32}$ inches)
Mass: Board: 80 g (2.8 oz)
Panel: 70 g (2.5 oz)

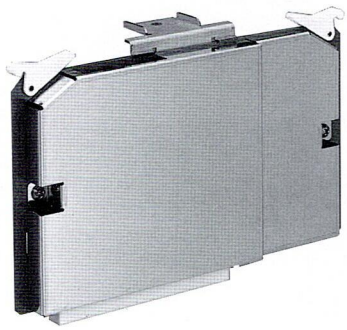


SVBK-170P

Component Output Board (for SVO-5800P/SVP-5600P)

•When this board is installed, the VTR can output component video signal (Y/R-Y/B-Y), which conforms to the Betacam SP format

Dimensions: 177 (W) × 105 (H) × 20 (D) mm ($7 \times 4^{1}/_{4} \times {}^{3}/_{32}$ inches)
Mass: 120 g (4.2 oz)

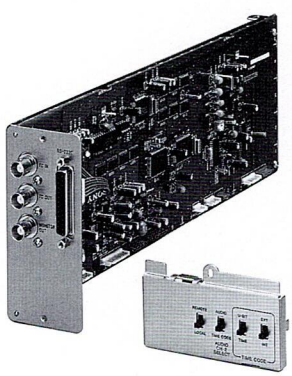


SVBK-180P

RS-232C Interface Board (for SVO-9620 and SVP-9020)

•Provides an RS-232C interface which enables direct control of a VTR from an external computer •Incorporates an EBU standard time code generator/reader •Built-in editing capability (insert/assemble) •Built-in intelligence to support frame by frame editing capability •Capable of changing its communication protocol to the same as that of the SVBK-120 Interface Board

Connector: RS-232C I/F: D-sub 25-pin (1)
Time Code out: BNC (1)
Time Code in: BNC (1)
Monitor out: BNC (1)
Dimensions: Board: 62 (W) × 115 (H) × 361 (D) mm ($2^{1}/_{2} \times {}^{5}/_{8} \times 14^{1}/_{4}$ inches)
Rear panel: 85 (W) × 52.5 (H) × 13 (D) mm ($3^{3}/_{8} \times 2^{1}/_{8} \times 1^{7}/_{32}$ inches)



SVRM-100A

Remote Control Unit (for SVO-5800P, SVP-5600P and SVO-9500MDP)

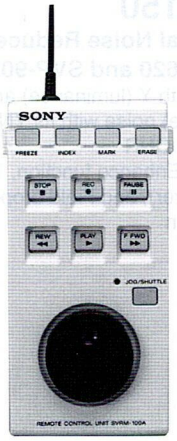
•Provides wired remote control operation for STOP/REC/PAUSE/REW/PLAY/FFWD
•JOG/SHUTTLE operation •Enables ±10 times normal speed in search operation
•Field freeze operation for SVO-5800P/SVP-5600P

Features especially for the SVO-9500MDP

•Index search function •Three freeze mode: frame freeze, first field freeze and second field freeze

Specifications

Power requirements:	DC 5V (supplied from the VTR)
Power consumption:	40 mW
Remote control:	Stereo mini plug
Control signal:	Control S
Dimensions: mm	90 (W) × 39 (H) × 182 (D)
	($3\frac{5}{8} \times 1\frac{9}{16} \times 7\frac{1}{4}$ inches)
Mass:	250 g (8.8 lb)



DSRM-10

Remote Control Unit

•Designed to remotely control the SVO-9620/SVP-9020
•Provides wired remote control operation for STOP/REC/PAUSE/REW/PLAY/FFWD
•JOG/SHUTTLE operation
•Enables ±16 times normal speed in search operation

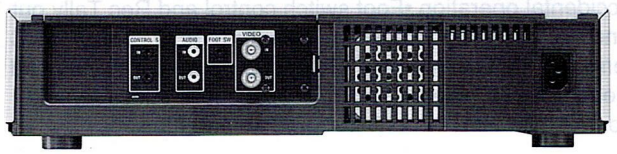
Specifications

Power requirements:	DV 5V (supplied from the connected VTR)
Power consumption:	50mW
Remote control:	Stereo mini-plug (with attached cable, length 3m (10ft))
Dimensions:	90 (W) × 46 (H) × 182 (D) mm ($3\frac{5}{8} \times 1\frac{13}{16} \times 7\frac{1}{4}$ inches)
Mass:	Approx. 360 g (12oz)
Supplied accessory:	Operating instructions

SVO-1320P

VHS Videocassette Recorder

•HQ circuitry and Double Azimuth PRO 4-head design for superb resolution and excellent colour reproduction •Auto repeat playback capability •Sequential playback by several VTRs via Control S •One-time playback capability •NTSC 4.43 playback capability for playback of materials recorded on the NTSC system •Dual Mode Shuttle (DMS) control •Key inhibit function to prevent accidental operation •Foot switch control and Rec Tally out •Index search •Control S terminals for remote control •BNC terminals •Digital auto tracking •Auto head cleaner •Hook hole for security •Supplied wireless remote commander RMT-V191B for remote operation



Supplied accessories:	Wireless Remote Commander RMT-V191B (1) Size AA batteries (2) AC power cord (1) Operation manual (1)

Specifications

General

Power requirements:	AC 220 to 240 V, 50 Hz
Power consumption:	14 W
Operating temperature:	5 to 40 °C (41 to 104 °F)
Storage temperature:	-20 to 60 °C (-4 to 140 °F)
Mass:	5.6 kg (12 lb 5 oz)
Dimensions:	430 (W) × 100 (H) × 360 (D) mm (17 × 4 × 14 ¼ inches)
Videocassette tape:	E-180/240
Recording/Playback mode:	
Recording	SP/LP mode (PAL/MESECAM)
Playback	SP/LP mode (PAL) SP/EP mode (NTSC : 4.43)
Tape speed:	
PAL	SP mode: 23.39 mm/sec. LP mode: 11.70 mm/sec.
NTSC 4.43 (Playback only)	SP mode: 33.35 mm/sec. EP mode: 11.12 mm/sec.
Fast forward/Rewind time:	Approx. 2.5 min. (with E-180)

Video

Video signal:	CCIR (monochrome) / PAL (colour)
Video recording system:	Rotary two-head helical scanning system, FM recording
Input:	BNC (1) (rear): 1.0 Vp-p, 75 Ω, unbalanced, sync negative
Output:	BNC (1) (rear): 1.0 Vp-p, 75 Ω, unbalanced, sync negative
S/N ratio:	44 dB (SP mode)
Horizontal resolution:	More than 240 lines (SP mode)

Audio

Audio recording system:	Monaural
Input:	PHONO (1) (rear) : -8 dBu, more than 47 kΩ
Output:	PHONO (1) (rear) : -8 dBu, less than 10 kΩ
Frequency response:	50 Hz to 10 kHz (Monaural/SP mode)
Distortion:	Less than 3.5 % (SP mode)

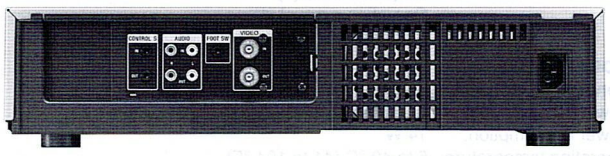
Other

Control S Input:	Mini jack (1)
Control S Output:	Mini jack (1)
Foot SW:	Stereo Mini jack (1)

SVO-1520P

VHS Videocassette Recorder

•HQ circuitry and Double Azimuth PRO 4-head design for superb resolution and excellent colour reproduction •VHS Hi-Fi stereo recording system •Auto repeat playback capability •Sequential playback by several VTRs via Control S •One-time playback capability •Power-on recording/ playback capability for unattended automatic VTR operation •Sensor recording capability •Audio dubbing function for the application of adding narration to a programme afterwards •NTSC 4.43 playback capability for playback of materials recorded on the NTSC system (Monaural only) •Dual Mode Shuttle (DMS) control •Key inhibit function to prevent accidental operation •Foot switch control and Rec Tally out •Index search •Control S terminals for remote control •BNC terminals •MIC In terminal •Digital auto tracking •Auto head cleaner •Hook hole for security •Supplied wireless remote commander RMT-V191B for remote operation



Supplied accessories: Wireless Remote Commander RMT-V191B (1)
Size AA batteries (2)
AC power cord (1)
Operation manual (1)

Specifications

General

Power requirements:	AC 220 to 240 V, 50 Hz
Power consumption:	14 W
Operating temperature:	5 to 40 °C (41 to 104 °F)
Storage temperature:	-20 to 60 °C (-4 to 140 °F)
Mass:	5.6 kg (12 lb 5 oz)
Dimensions:	430 (W) × 100 (H) × 360 (D) mm (17 × 4 × 14 ¼ inches)
Videocassette tape:	E-180/240
Recording/Playback mode:	
Recording	SP/LP mode (PAL/MESECAM)
Playback	SP/LP mode (PAL)
	SP/EP mode (NTSC : 4.43)
Tape speed:	
PAL	SP mode : 23.39 mm/sec.
	LP mode : 11.70 mm/sec.
NTSC 4.43 (Playback only)	
	SP mode : 33.35 mm/sec.
	EP mode : 11.12 mm/sec.
Fast forward/Rewind time:	
	Approx. 2.5 min. (with E-180)

Video

Video signal:	CCIR (monochrome) / PAL (colour)
Video recording system:	Rotary two-head helical scanning system, FM recording
Input:	BNC (1) (rear): 1.0 Vp-p, 75 Ω, unbalanced, sync negative
Output:	BNC (1) (rear): 1.0 Vp-p, 75 Ω, unbalanced, sync negative
S/N ratio:	44 dB (SP mode)
Horizontal resolution:	More than 240 lines (SP mode)

Audio

Audio recording system:	Hi-Fi / Monaural
Input:	PHONO (2) (L/R, rear) : -8 dBu, more than 47 kΩ
Output:	PHONO (2) (L/R, rear) : -8 dBu, less than 10 kΩ
Frequency response:	20 Hz to 20 kHz (Hi-Fi mode)
Dynamic range:	More than 86 dB (Hi-Fi mode)
Distortion:	Less than 0.5 % (Hi-Fi mode)
	Less than 3.5 % (Monaural/SP mode)

Other

Control S Input:	Mini jack (1)
Control S Output:	Mini jack (1)
Foot SW:	Stereo Mini jack (1)

RM-V200

Wired/Wireless Remote Control Unit

•VTR operation: STOP/PLAY/REC/PAUSE/FWD SEARCH/REW SEARCH/FF/ REW/EJECT/POWER ON & OFF •High speed rewind button/ ×2speed playback/ frame advance operations for SVO-1500P •Either Control S or Control P control signal selectable

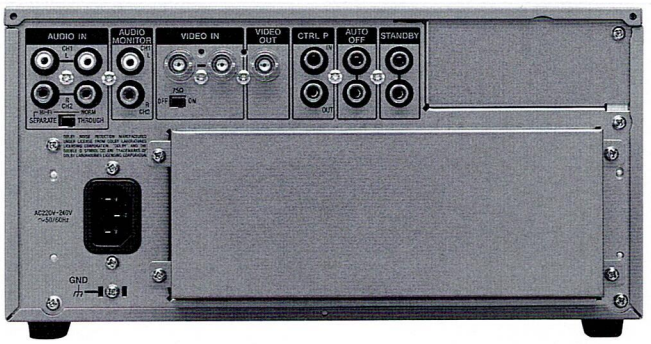
Supplied accessories:	Size AA battery (2) Control S cable (3m) Control P cable (1.5m) Operation manual
Mass:	105 g (3 oz) excluding batteries
Dimensions:	65 (W) × 18 (H) × 150 (D) mm ($2^5/_8 \times 2^3/_{32} \times 6$ inches)
Power requirements:	DC 3V
Operating temperature:	5 to 45°C (41 to 113°F)
Control signal:	Control S (SIRCS) Control P (Inverted SIRCS)

SVO-965P

VHS Hi-Fi

VHS Hi-Fi Duplicator

•Provides both recording and playback modes •High cocentration of Silicon is incorporated in the lower drum for improved wear durability •Long-life video Hi-Fi head •High quality picture and sound by wide video/audio track design •Quality construction and durable mechanism for highly reliable operation •Low power consumption of 25W •Compact size and lightweight •Control P IN/OUT connectors for loop-through connection •Loop-through audio/video connectors for simpler system connection •Control S IN connector for VTR operation checking •Automatic check function for reliable recording results (operated from SVRM-911/SVRM-960) •Data set function: VTR ID SET, ID code REC ON/OFF, ID code display ON/OFF, video AGC ON/OFF, audio limiter ON/OFF, Hi-Fi REC ON/OFF etc. •Auto off function for technical difficulties •Convenient front test terminals for easy technical testing •Operation status indicator: TAPE RUN, REC, EJECT/ AUTO OFF



Supplied accessories: AC power cord
Instruction manual

Specifications

General

Mass:	7 kg (15 lb 7 oz)
Dimensions:	270 (W) × 132 (H) × 370 (D) mm ($10^{3}/_{4} \times 5^{1}/_{4} \times 14^{5}/_{8}$ inches)
Power requirements:	AC 220 to 240V, 50/60Hz
Power consumption:	25W
Storage temperature:	–20 to 60°C (–41 to 140°F)
Operating temperature:	5 to 40°C (41 to 104°F)
Tape speed:	23.39 mm/s (SP mode)
F FWD and REW time:	Within 2.5min (with Sony E-180 tape)
Videocassette:	VHS standard cassette tapes

System

Video signal system:	CCIR standard/PAL colour
Video recording system:	Rotary two-head Azimuth recording, VHS standard Luminance: FM recording Colour signal: Converted subcarrier phase shift recording
Audio recording system:	Hi-Fi audio: Rotary two-head helical scanning system Normal audio: Stationary head

Video

Input:	Composite video: BNC with loop-through output, 1Vp-p, 75Ω switchable, unbalanced, sync negative
Output:	Composite video: BNC, 1Vp-p, 75Ω, unbalanced, sync negative
Horizontal resolution:	More than 240TV lines
S/N ratio:	Better than 44dB

Audio

Input:	SEPARATE/THROUGH switch selectable* Hi-Fi (CH-1/CH-2): Phono (2) Normal (CH-1/CH-2): Phono (2)
Audio level:	–10dBu, 47kΩ, unbalanced
Output:	Phono (2)
Audio level:	–10dBu, 47kΩ, unbalanced
S/N ratio (Dolby off):	43dB (Normal audio)
Dynamic range:	Better than 90dB (Hi-Fi audio)
Frequency response:	Normal: 50Hz to 10kHz Hi-Fi: 20Hz to 20kHz
Audio level adjustment:	Manual (4ch) Limiter on/off selectable (Normal audio)

Remote control

Control S:	IN: Mini jack
Control P:	IN: Phono OUT: Phono

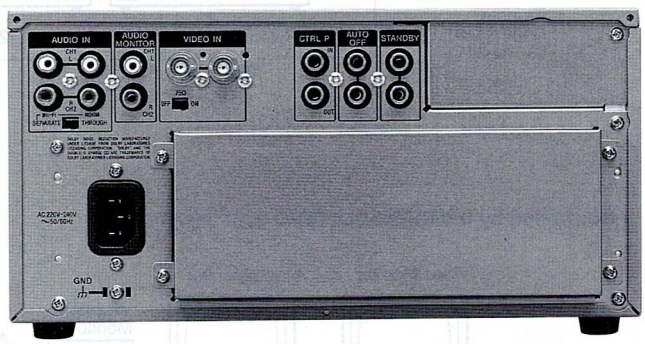
* When switch is in THROUGH position, loop-through output is available

SVO-915PL

VHS Hi-Fi

VHS Hi-Fi Duplicator

•Provides recording mode only for large size duplication system •High concentration of Silicon is incorporated in the lower head drum scanner for improved wear durability •Long-life video/Hi-Fi head •Quality construction and durable mechanism for highly reliable operation •High quality picture and sound by wide video/audio track design •Low power consumption of 25W •Compact and light-weight •Control P IN/OUT connectors •Loop-through audio/video connectors for simple system connection •Control S IN connector for VTR operation checking •Data set function: VTR ID SET, ID code REC ON/OFF, ID code display ON/OFF,video AGC ON/OFF, audio limiter ON/OFF, Hi-Fi REC ON/OFF, Dolby NR ON/OFF etc. •Auto off function for technical difficulties •Convenient front test terminals for easy technical testing •Operation status indicator: TAPE RUN, REC, EJECT/AUTO OFF •Audio monitor out for checking the audio recording level



Supplied accessories: AC power cord
Instruction manual

Specifications

General

Mass:	7 kg (15 lb 7 oz)
Dimensions:	270 (W) × 132 (H) × 370 (D) mm (10 3/4 × 5 1/4 × 14 5/8 inches)
Power requirements:	AC 220 to 240V, 50/60Hz
Power consumption:	25W
Storage temperature:	–20 to 60°C (–41 to 140°F)
Operating temperature:	5 to 40°C (41 to 104°F)
Tape speed:	23.39 mm/s (SP mode)
F FWD and REW time:	Within 2.5min (with Sony E-180 tape)
Videocassette:	VHS standard cassette tapes

System

Video signal system:	CCIR standard/PAL colour
Video recording system:	Rotary two-head Azimuth recording, VHS standard Luminance: FM recording Colour signal: Converted subcarrier phase shift recording
Audio recording system:	Hi-Fi audio: Rotary two-head helical scanning system Normal audio: Stationary head

Video

Input:	Composite video: BNC with loop-through output, 1Vp-p, 75Ω switchable, unbalanced, sync negative
Horizontal resolution:	More than 240TV lines
S/N ratio:	Better than 44dB

Audio

Inputs:	SEPARATE/THROUGH switch selectable* Hi-Fi (CH-1/CH-2): Phono (2) Normal (CH-1/CH-2): Phono (2)
Input level:	–10dBu, 47kΩ, unbalanced
Outputs:	Phono (2)
Output level:	–10dBu, 47kΩ, unbalanced
S/N ratio (Dolby off):	43dB (Normal audio)
Dynamic range:	Better than 90dB (Hi-Fi audio)
Frequency response:	Normal: 50Hz to 10kHz Hi-Fi: 20Hz to 20kHz
Audio level adjustment:	Manual (4ch) Limiter on/off selectable (Normal audio)

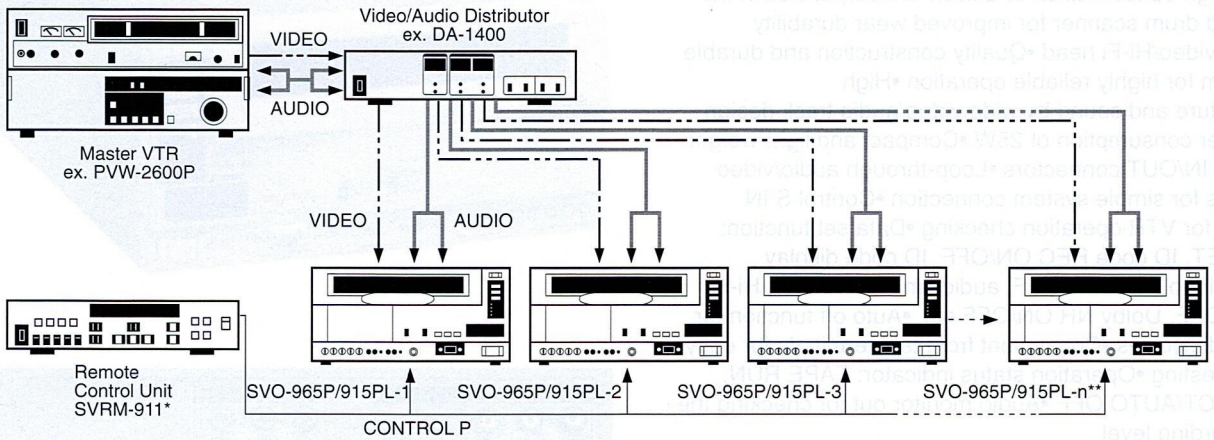
Remote control

Control S:	IN: Mini jack
Control P:	IN: Phono OUT: Phono

* When switch is in THROUGH position, loop-through output is available

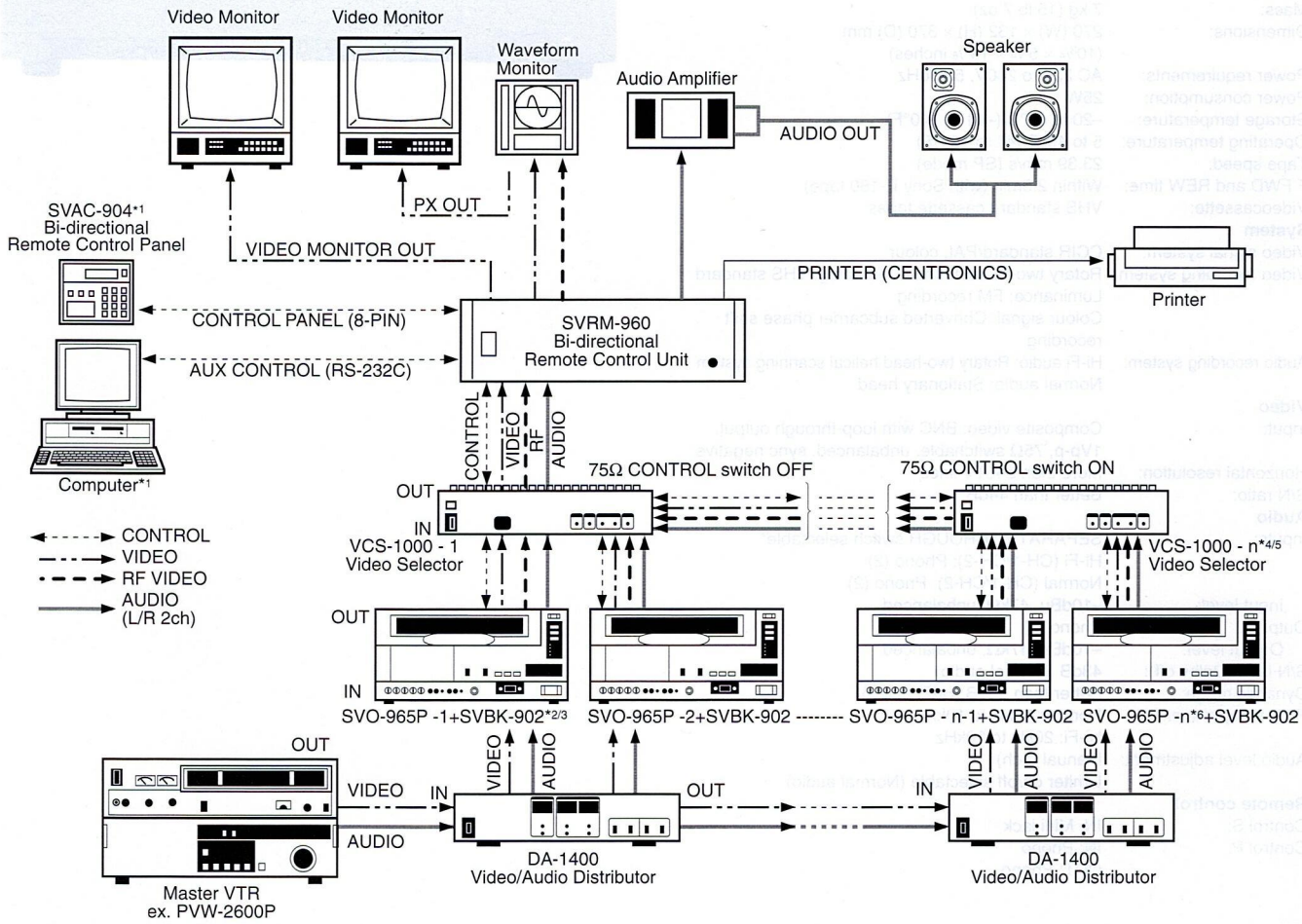
System Configuration

• Controlled by the SVRM-901



* RM-V200 Remote Control Unit can also be used for a master remote control unit.
** Up to 2000 VTRs can be connected.

• Controlled by the SVRM-960 (SVO-965P only)



*1 VTR control can be operated either from the SVAC-904 or an external computer.
*2 SVBK-902 Bi-directional Interface Board (optional) must be installed in the SVO-965P.
*3 Set the 75Ω switch on all the SVBK-902 used in a system to OFF.
*4 Set the 75Ω switch on the last VCS-1000 to ON.
*5 Up to 50 VCS-1000 can be connected.
*6 Up to 1000 VTRs can be connected.

SVRM-911

Serial Remote Control Unit

•Control P out connectors for controlling entire duplication VTRs: up to 2,000 VTRs
•System management capability
•VTR mode set up capability: VTR ID code REC ON/OFF, video AGC ON/OFF, Hi-Fi Audio ON/OFF, audio limiter ON/ OFF, etc.
•Auto Check function for examining secure video/audio recording •Legible push-type buttons •7-segment LED for ID display
•Built-in AC power supply •19-inch rack mountable/2u size

RM-V200 (Wired only)

Remote Control Unit

•For simple control of one VTR
•Equipped with control P/S select switch
•Duplication control capability via control P output

SVRM-960

Bi-directional Remote Control Unit (for SVO-965P)

•Duplication VTR control capability: up to 1,000 VTRs
•Individual VTR status monitoring capability
•VTR mode set up capability: VTR ID code REC ON/OFF, video AGC ON/OFF, Hi-Fi Audio ON/OFF, audio limiter ON/ OFF, etc.
•Auto Check function for examining secure video/audio recording
•RS-232C interface for computer control operation

Mass: 8.0 kg (17 lb 10 oz)
Dimensions: 424 (W) × 88 (H) × 350 (D) mm ($16^{3}/_{4} \times 3^{1}/_{2} \times 13^{7}/_{8}$ inches)

SVAC-904

Bi-directional Remote Control Panel (for SVO-965P)

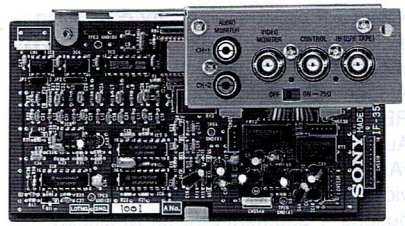
•To operate a duplication system with the SVRM-960 Bi-directional remote control unit

Mass: 0.8 kg (1 lb 12 oz)
Dimensions: 180 (W) × 53 (H) × 220 (D) mm ($7^{1}/_{8} \times 2^{1}/_{8} \times 8^{3}/_{4}$ inches)

SVBK-902

Bi-directional Interface Board (for SVO-965P)

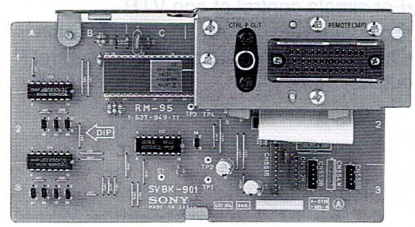
•To enable two way communication between duplication VTRs and the SVRM-960



SVBK-901

34-pin Parallel Interface Board

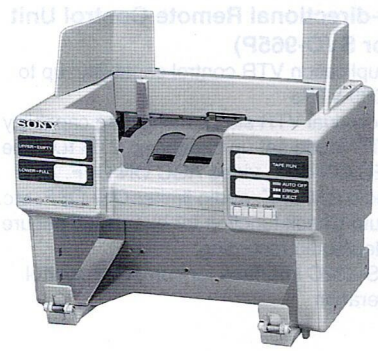
•To meet 34-pin based control system
•Control P serial control signal output connector



SVCC-960

Automatic Cassette Changer

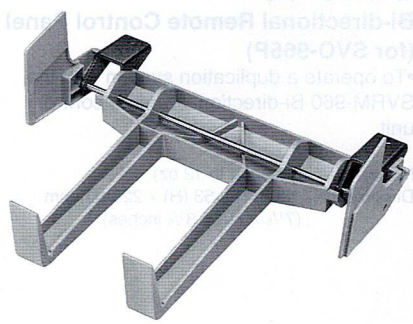
•Automatic cassette loading and ejecting for efficient duplication operation: Up to 5 cassettes



SVAC-902

Cassette Holder

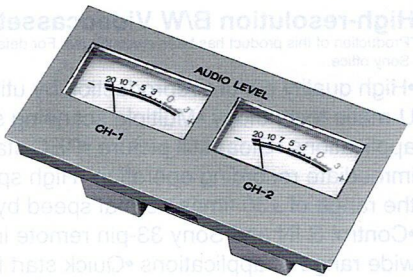
•To hold cassettes ejected by the SVCC-960
•Using with the SVCC-960



SVAC-901

Audio Meter Unit

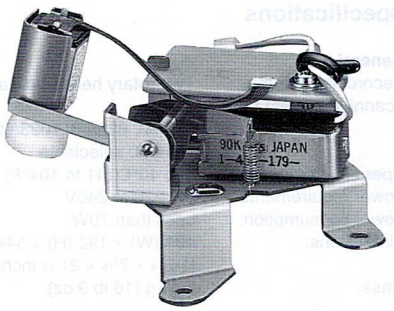
•For monitoring audio recording level



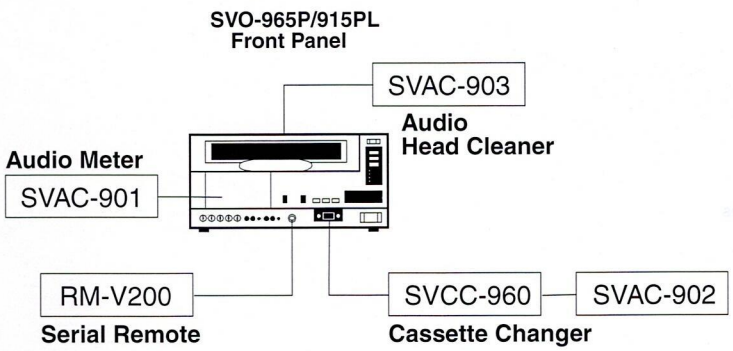
SVAC-903

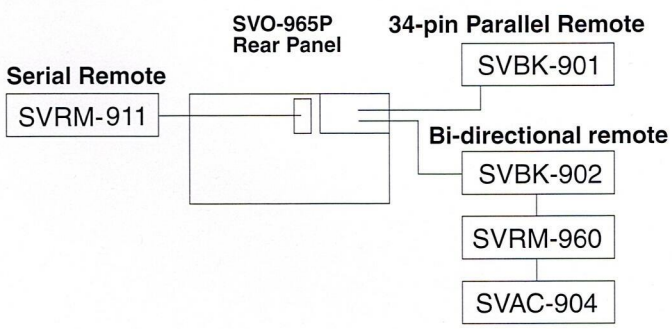
Audio Head Cleaner

•For cleaning a stationary audio head in the SVO-965P/915PL



Optional Accessory Allocations





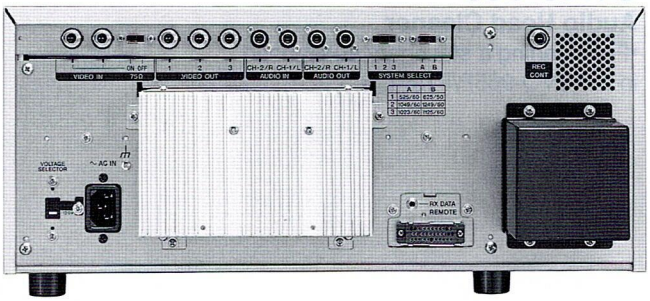
VO-9600H

High-resolution B/W Videocassette Recorder

*Production of this product has been discontinued. For details, please consult your nearest Sony office.

•High quality picture reproduction by utilizing the SP U-matic technology •Multiple scanning system for universal applications •Clear still picture •REC standby function for immediate recording operation •High speed picture search in the range of ±30 times normal speed by a Search Dial •Control S IN and Sony 33-pin remote interface to meet a wide range of applications •Quick start function for immediate VTR operation •Three video out connectors for easy system expansion •Audio recording capability •Real time counter •Compliance with medical safety regulations: UL-544 and IEC-601-1

Supplied accessories: KSP-60 SP U-matic videocassette
Instruction manual
AC power cord



Specifications

General

Recording system: Two rotary heads helical scanning system
Scanning system (lines/Hz):
525/60, 625/50, 1023/60, 1049/60, 1125/60, 1249/50 selectable
Operating temperature: 5 to 40°C (41 to 104°F)
Power requirements: AC 220 to 240V
Power consumption: Less than 70W
Dimensions: 424 (W) × 192 (H) × 544 (D) mm
(16 3/4 × 7 5/8 × 21 1/2 inches)
Mass: 7.5 kg (16 lb 9 oz)

Video signal

Input: 1.0Vp-p, 75Ω (with termination switch), sync negative
Output: 1.0Vp-p, 75Ω, sync negative
S/N ratio & Horizontal resolution:
46dB, 480 lines (525/60)
43dB, 480 lines (625/50)
46dB, 240 lines (1023/60)
46dB, 240 lines (1049/60)
46dB, 220 lines (1125/60)
43dB, 240 lines (1249/50)

Audio signal

Input (0dBu=0.775Vrms):
LINE IN: –10dBu, 47kΩ, unbalanced
MIC IN: –60dBu, 3kΩ, unbalanced
–10dBu, 47kΩ, unbalanced
Output (0dBu=0.775Vrms):
LINE OUT: –5dBu at 47kΩ, unbalanced
Headphones: –24dBu to –46dBu at 8Ω headphones
S/N ratio: 48dB
Frequency response: 50Hz to 15kHz

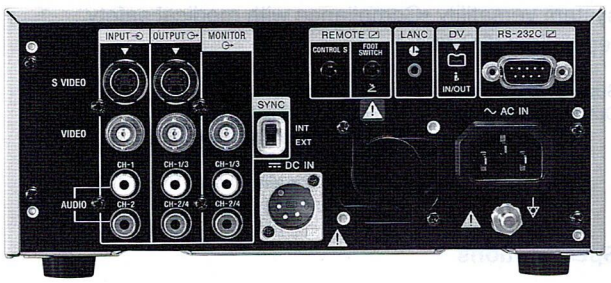
Tape transport

Tape speed: 9.53 mm/s
REC/PB time: 60min
Videocassette: KSP/KSP-S series videocassette

DSR-20MDP

DVCAM Recorder

•Superb picture quality of the DVCAM format •Playback capability of DV recorded tapes (SP mode only) •Long recording time: up to 184 minutes with a standard-size cassette and 40 minutes with a mini-size cassette •i.LINK (DV In/Out) interface providing a single cable connection to transfer digital video and audio with virtually no generation loss •Foot switch control capability •LANC interface for simple editing with a LANC-equipped recorder or editing system •RS-232C and Control S interfaces for remote control operation •Frame still picture •External Sync*1 In connector for synchronised playback •Auto repeat function •Power-on recording capabilities •Duplication mode with original time code •Compact and lightweight (half-rack width) •AC/DC operation*2 •Index Points search functions (when using a cassette with IC Cassette Memory) •RMT-DS20 Wireless Remote Controller (supplied accessory) for control of basic functions •Compliance with the MDD (Medical Device Directive)*3



*1 The DSR-20P locks to V-sync only.
*2 The DSR-20MDP can be used for outdoor operation, but is designed for stationary use. Vibration resistance is not guaranteed.
*3 Medical safety regulation issued by the Commission of the European community

Supplied accessories: Wireless Remote Commander RMT-DS20 (1)
AC power cord (1)
Cleaning cassette (1)
Operation manual (1)

Optional accessories: Remote Control Unit DSRM-10
Foot Control Unit FS-20
DC power cord CCDD-X2

Specifications

GENERAL

Video signal standard: CCIR standard, PAL colour
Power requirements: AC: 220 to 240 V, 50/60 Hz DC: 12 V
Power consumption: AC: 28 W DC: 2.0 A
Operating temperature: 5 °C to 40 °C (41 °F to 104 °F)
Storage temperature: -20 °C to 60 °C (-4 °F to 140 °F)
Mass: Approx. 5.0 kg (11 lb)
Dimensions: Approx. 212 (W) x 98 (H) x 395 (D) mm (8 3/8 x 3 7/8 x 15 5/8 inches) (including external projections)
Tape speed:
DVCAM mode: 28.221 mm/s
DV SP playback mode: 18.831 mm/s
Recording/Playback time:
Standard cassette: 184 min. with a PDV-184ME/184N/184MEM
Mini cassette: 40 min. with a PDVM-40ME/40N/40MEM
Tape rewind time: Less than 2 min. with a PDV-184ME/184N/184MEM
Search speed (via RMT-DS20 or DSRM-10): -2, -1, -1/5, -1/10, still, 1/10, 1/5, 1, 2, Cue/Review (10 or 18 times)

SIGNAL INPUTS

Video Inputs

Composite (BNC x1)*: 1.0 Vp-p, 75 Ω, unbalanced, sync negative
*Shared with the External Sync IN
S Video (4-pin Mini-DIN x1):
Y: 1.0 Vp-p, 75 Ω, unbalanced, sync negative
C: 0.3 Vp-p (subcarrier burst), 75 Ω, unbalanced

Audio Inputs

RCA pin (x2) (stereo L/ R): 2 Vrms (full bit)

Video outputs

Composite (BNC x1, BNC for monitor OUT x1): 1.0 Vp-p, 75 Ω, unbalanced, sync negative
S-Video (4-pin Mini-DIN x1):
Y: 1.0 Vp-p, 75 Ω, unbalanced, sync negative
C: 0.3 Vp-p (subcarrier burst), 75 Ω, unbalanced

Audio outputs

RCA pin (x2) (stereo L/R): 2 Vrms (full bit)
L: CH1, CH3 or CH1/3 mix
R: CH2, CH4 or CH2/4 mix

Digital inputs/outputs

i.LINK (DV IN/OUT) (4-pin) (x1): IEEE1394-based

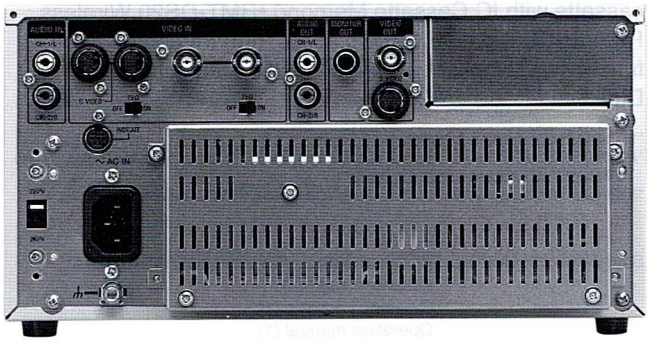
OTHERS

LANC: Stereo mini-mini jack (1)
DC IN: 12 V XLR 4-pin (1)
Control S: Stereo mini jack (IN) (1)
Headphone jack: Stereo mini jack (1)
RS-232C: D-sub 9-pin, male (1)
Foot Switch: Stereo Mini Jack (1)
Equal Potential Terminal: (1)

SVO-9500MDP

S-VHS Videocassette Recorder

•High quality picture and sound by S-VHS format and wide video/audio track design •Digital Chroma Noise Reducer (CNR) to provide highly stable picture •Clear and crisp freeze pictures in either frame or field mode thanks to built-in digital frame memory •Quality construction and durable mechanism for highly reliable operation •Quick response mechanism for immediate operation •±10 times picture search •Blank search function for quick searching of blank part on the tape •Index search function for rapid point location •Programmed operation •Tape remain indicator to show the amount of tape remaining •Auto head cleaner •Compact size and lightweight •Hi-Fi stereo audio recording system •Hi-Fi ON/OFF switch •VTR mode setting menu •SVRM-100A optional remote control unit •SVBK-100 33-pin interface board/SVBK-110 34-pin interface board/ SVBK-120 Computer interface board (RS-232C) for wide system versatility •Compliance with medical safety regulation: IEC-601-1



Supplied accessory:	Instruction manual
Optional accesories:	Remote control unit SVRM-100A
	33-pin interface board SVBK-100
	34-pin interface board SVBK-110
	Computer interaface board SVBK-120
	Indicator unit SVAC-100

Specifications

General

Video recording system:	Two rotary heads helical scanning system
Video signal system:	CCIR monochrome/PAL colour
Operating temperature:	5 to 40°C (41 to 104°F)
Power requirements:	AC 220V/240V (selectable), 50/60Hz
Power consumption:	Less than 64W
Dimensions:	270 (W) × 144 (H) × 370 (D) mm ($10^{3}/_{4} \times 5^{3}/_{4} \times 14^{5}/_{8}$ inches)
Mass:	12 kg (26 lb 7 oz)

Video signal

Input:	BNC: 1.0Vp-p, 75Ω, sync negative
	S-VIDEO: Mini DIN 4-pin
	Y: 1.0Vp-p, 75Ω, C: 0.3Vp-p, 75Ω
Output:	BNC: 1.0Vp-p, 75Ω, sync negative
	S-VIDEO: Mini DIN 4-pin
	Y: 1.0Vp-p, 75Ω, C: 0.3Vp-p, 75Ω
S/N ratio:	Better than 45dB

Audio signal

Input:	LINE IN: CH-1/CH-2: –10dBu, 47kΩ, unbalanced
	Microphone: CH-2: –60dBu, 3kΩ, unbalanced
Output:	LINE OUT: CH-1/CH-2: –10dBu, 47kΩ, unbalanced
	Monitor out: –5dBu, 47kΩ, unbalanced
S/N ratio:	40dB (standard)
Dynamic range:	Better than 90dB (Hi-Fi)
Frequency response:	50Hz to 10kHz (standard), 20Hz to 20kHz (Hi-Fi)

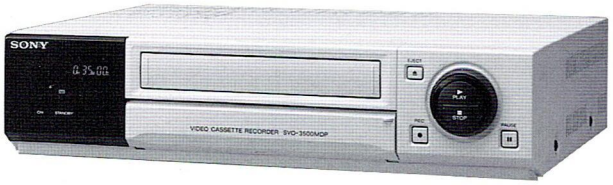
Tape transport

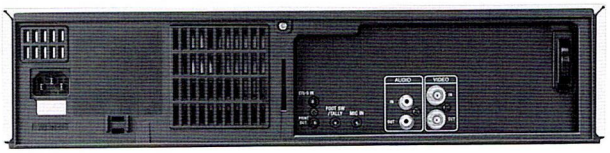
Tape speed:	23.39 mm/s
F FWD and REW time:	2.5min (E-180)
Videocassette:	VHS standards cassette tapes

SVO-3500MDP

VHS Videocassette Recorder

•Reality Regenerator provides clearer, more accurate pictures during playback •Picture capture function •APC (Adaptive Picture Control) optimizes both recording and playback •Dual Mode Shuttle (DMS) control •High speed FF/Rewind •Control S IN connector •Foot switch/Tally out •Index search function •Auto head cleaner •Wireless remote commander RMT-V191B is supplied •UL2601-1, EN60601-1 listed





Specifications

General

Mass:	4.3 kg (9 lb 7 oz)
Dimensions:	420(W) x 100(H) x 300(D) mm (16⅝ × 4 × 11⅞ inches)
Power requirements:	AC 120 V to 240 V, 50/60 Hz, 3 wire grounded receptacle

System

Video Signal:	VHS PAL standard
Tape Speed:	SP only
FF/Rew time:	90 s with E-180 tape

Video Input/Output

Video recording system:	Rotary two-head helical scanning system
Input:	BNC (1): 1.0 Vp-p, 75 Ω, unbalanced, sync negative
Output:	BNC (1): 1.0 Vp-p, 75 Ω, unbalanced, sync negative
S/N Ratio:	More than 44 dB (with high grade tape)
Horizontal resolution:	240 TV lines (colour) 350 TV lines (b/w)

Other

Control S IN:	Mini jack, input (1)
Audio IN/OUT:	RCA (1)
Foot SW/Rec Tally:	Stereo mini pin (1)
MIC IN:	Mini pin (1)
Print remote:	Stereo mini pin (1)

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DXC-D30P series

3-chip colour video camera

•Incorporates DSP(Digital Signal Processing) technology based on the TruEye™ •Directly dockable to analogue recorders (PVV-3P and EVV-9000P) •Directly dockable to the DSR-1P DVCAM Digital Recorder •Compact size, lightweight and low power consumption •High density three 2/3-inch IT Power HAD sensors and the new digital signal processing circuits offer superior picture quality
— 850 TV lines of horizontal resolution
— Excellent signal-to-noise ratio of 61dB
— High sensitivity of F11.0 at 2000 lx
— Smear level -125dB
•TruEye Process realizes faithful color reproduction •High degree of stability in video output (offered by DSP) •Uniformity of picture tone among multiple DXC-D30P units (offered by DSP) •Skin Detail with auto detection system of active area •Horizontal detail frequency control •Red vertical detail correction •New DCC Plus function on the basis of DynaLatitude processing - for ideal video level distribution in any situations •Clean Detail by DSP provides Black Halo-free natural lines •Clear Scan function for shooting computer displays without horizontal bands appearing across display screen •Hyper Gain mode provides the combined effect of +30dB of electronic gain-up and +6dB of DPR (Dual Pixel Readout) under 1 lux illumination •DPR (Dual Pixel Readout) technology realizes noiseless picture even when gain value is increased •TLCS (Total Level Control System) to ensure the correct exposure even under/ over the limits of automatic iris control •Intelligent Auto Iris control function •EZ Mode and EZ Focus functions enable cameramen to get ready for shooting swiftly •Easy-to-use File Management System (Five factory files and three user files available) •The 10-pin REMOTE connector (RS-232C standard) allows control from external computers •ATW (Auto Tracing White Balance) function automatically adjusts white balance when lighting conditions change •Programmable gain mode allows precise gain selection from 8 gain values •Three mode auto iris system- STD (Standard), BACK L(Back Light) and SPOT L(Spot Light) •DCC (Dynamic Contrast Control) circuit can reproduce 600% dynamic range •Variable Speed Electronic Shutter •Clear Scan•Supplies a 1kHz audio reference signal simultaneously with the colour bar signal •Date and time can be superimposed on the video signal •Directly dockable with DSR-1P DVCAM Digital Recorder (Refer to the description of the DSR-130P) •Directly dockable with the PVV-1AP/3P for high quality component acquisition (Refer to the description of PVW-D30P) or with the EVV-9000P for handy operation •Can be combined with the recorders from Panasonic or JVC via the CA-512AP or CA-513 •When combined with CA-537P/327P, 26/14-pin connectors provides signal output in Y/R-Y/B-Y, VBS, Y/C and RGB forms for connection with various equipement •Can be connected with computer equipment via CA-325A/325B camera adaptor •Adjustable shoulder pad •Monitor out function

Supplied accessories: Wind screen
Lens mount cap
Chart for flange focal
Operating instructions

Camera adaptor is optional

Specifications

General

Image device:	2/3–inch Interline Transfer CCD (×3) 795(H) × 596(V) total picture elements 752(H) × 582(V) effective picture elements
Built-in filters:	1: 3200K, 2: 5600K + 1/8ND, 3: 5600K, 4: 5600K+1/64ND
Lens mount:	Bayonet-mount
Video signal system:	PAL standard
Sync system:	Internal or external with VBS or BS
Horizontal resolution:	850TV lines
Minimum illumination:	0.5 lx with F1.4, Hyper Gain (DPR+30dB) 0.8 lx with F1.8, Hyper Gain (DPR+30dB)
Sensitivity:	F11.0 at 2000 lx (3200K, 89.9% reflectance)(typical)
Gain selection:	–3dB, 0dB, +3dB, +6dB, +9dB, +12dB, +18dB, * DPR+18dB, +24dB, * DPR+24dB, Hyper Gain (* DPR+30dB)
S/N ratio:	61dB (typical)
Power requirements:	DC12V
Power consumption:	12W (without VF/CA-537P)
Operating temperature:	–10 to 45°C (14 to 113°F)
Mass:	Approx. 2.3 kg (5 lb 1 oz, for camera head only) Approx. 4.5 kg (9 lb 15 oz, with VF and lens, w/o lens hood)

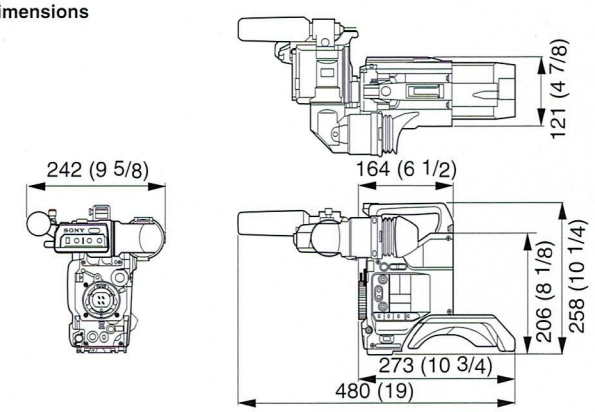
Inputs/outputs

INTERFACE:	Pro 50-pin, Pro 76 pin DIGITAL
VIDEO OUT:	BNC type
LENS:	12-pin
VF:	DIN 8-pin, 20 pin
REMOTE:	10-pin, stereo mini
MONITOR OUT:	BNC type

* DPR = +6dB, DPR +18dB = +24dB, DPR+24dB = +30dB, DPR+30dB = +36dB

	DXC-D30PF1	DXC-D30PK1	DXC-D30PL1	DXC-D30PH
Camera head	Yes	Yes	Yes	Yes
Camera handle	Yes	Yes	Yes	Yes
DXF-701WSCE Viewfinder	Yes	Yes	Yes	Option
External microphone	Yes	Yes	Yes	Not available
VCT-U14 Tripod adaptor	Yes	Yes	Yes	Option
VCL-918BY Zoom lens	Yes	Yes	Option	Option
LC-421 Carrying case	Yes	Option	Option	Option
RM-LG1 Logger	Yes	Yes	Yes	Option

Dimensions



DXC-D30WSP

Wide-screeen switchable colour video camera

• Aspect ratio is switchable (16:9 wide screeen or 4:3) •All the functions of the DXC-D30P are incorporated •Power HAD WS CCD •16:9 ID information is included (DVCAM system such as DSR-1/60/80 detects 16:9 ID and can record or play back the 16:9 video signal)

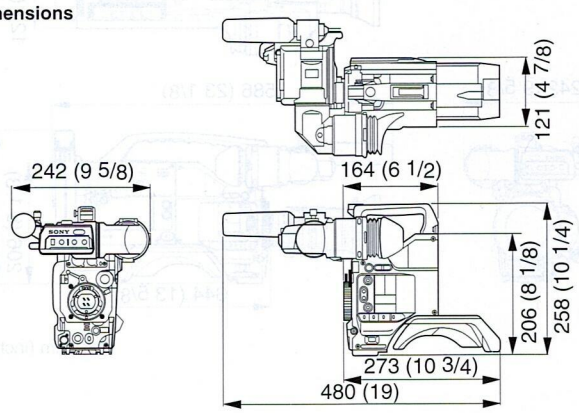
*Camera adaptor is optional

Supplied accessories:
- Remote Control Unit RM-LG1
- Viewfinder DXF-701WSCE (incl. Mic holder)
- External microphone (incl. Mic. cable)
- Wind Screen
- Tripod adaptor VCT-U14
- Angle plate for the DXC-D30WSP
- Lens cap
- Flange back chart
- Operation manual for the DXC-D30P
- Operation manual supplement for the DXC-D30WSP
- ClipLink Guide

Specifications:

Image device:	3-chip 2/3-inch, Interline-Transfer CCD
Optics:	F1.4 medium index prism system
Effective picture elements:	980 × 582 (H × V)
Total picture elements:	1038 × 594 (H × V)
Sensing area:	9.6 mm × 5.4 mm
Built-in filters:	1: 3200K/3000K 2: 5600K+1/8ND 3: 5600K 4: 5600K+1/64ND
Lens mount:	Sony 2/3-inch Bayonet mount
Signal system:	PAL colour system
Scanning system:	2:1 interlaced, 625 lines, 50 fields/s
Horizontal frequency:	15.625 kHz
Vertical frequency:	50 Hz
Sync system:	Internal and External with the VBS or BS signal
Horizontal resolution:	16:9 mode: 700TV lines 4:3 mode: 700TV lines
Vertical resolution:	480TV lines (without EVS) 530TV lines (with EVS)
Minimum illumination:	0.5 lx with F1.4, Hyper gain (30dB+DPR) 0.8 lx with F1.8, Hyper gain (30dB+DPR)
Sensitivity:	F11 at 2000 lx (3200K, 89.9% reflectance) (typical)
Gain selection:	-3dB, 0dB, 3dB, 6dB, 9dB, 12dB, 18dB, 18dB+DPR, 24dB, 24dB+DPR, Hyper Gain (30dB+DPR)
Shutter speed selection:	OFF, 1/60, 1/250, 1/500, 1/1000, 1/2000 s
Clear scan selection:	50.3 to 201.4Hz
Signal-to-noise ratio:	61dB (typical)
Registration:	0.05% (all zones, without lens)
Geometric distortion:	Below measurable level
Video output:	Camera head BNC connector: VBS: 1.0 Vp-p, sync negative 26-pin connector of CA-537/P docked to DXC-D30WS/P VBS: 1.0Vp-p, sync negative Y/R-Y/B-Y: Y: 1.0Vp-p, sync negative R-Y/B-Y: 525mVp-p RGB: 1.4Vp-p Y/C: Y: 1.0Vp-p, sync negative C: 300mVp-p (burst level)
Inputs/ Outputs:	INTERFACE: Pro76-pin DIGITAL, Pro 50-pin VIDEO OUT: BNC-type MONITOR OUT: BNC-type LENS: 12-pin VF: DIN 8-pin, 20-pin REMOTE 1: Stereo mini REMOTE 2: 10-pin
Power requirements:	DC 12V (10.5 to 17V)
Power consumption:	14.9W (without VF) 15.3W (when docked with the DSR-1/P) 17W (with VF)
Operating temperature:	-10°C to 45°C (14°F to 113°F)
Storage temperature:	-20°C to 60°C (-4°F to 140°F)
Mass:	Approx. 2.5 kg (5 lb 8 oz) for camera head only Approx. 3.3 kg (7 lb 4 oz) with VF and microphone
Dimensions:	121 (W) × 206 (H) × 273 (D) mm ($4^7/_8 \times 8^1/_8 \times 10^3/_4$ inches) (without projections)
Note	DPR is equivalent to +6dB gain up. 18dB+DPR: Equivalent to +24dB 24dB+DRR: Equivalent to +30dB Hyper Gain (30dB+DPR): Equivalent to +36dB

Dimensions



DSR-130P

Digital Camcorder

•Combination of the DXC-D30P Digital Video Camera and the DSR-1P DVCAM Dockable Recorder, equivalent to one-piece camcorder •Compact and lightweight: 7.5 kg (16 lb 8 oz) including a viewfinder, microphone, lens, battery, tape and carrying handle •DSP (Digital Signal Processing) •Three 2/3-inch Power HAD™ CCDs for low smear level, high sensitivity and high S/N ratio •Superb picture quality of the DVCAM format •Playback capability of consumer DV recorded tapes (SP mode only) •Long recording time; up to 184 minutes with a standard cassette and 40 minutes with a mini cassette •ClipLink™ operation •TruEye™ process for faithful colour reproduction •DynaLatitude™ •Skin Detail with auto detection of active area •Black halo-free, Clean Detail •Camera Setup File system •SetupNavi™ function for Camera Setup File storage •SetupLog™ function for automatic recording of camera setting data •Total Level Control System (TLCS) for automatically extended range of light control •EZ Focus and EZ mode for quick camera setup •Auto Tracing White Balance (ATW) function •Adjustable Black Stretch and Compress •Dual Zebra viewfinder indication of over exposure •Time code superimposed during playback •Edit Search function •Freeze Mix function

Specifications

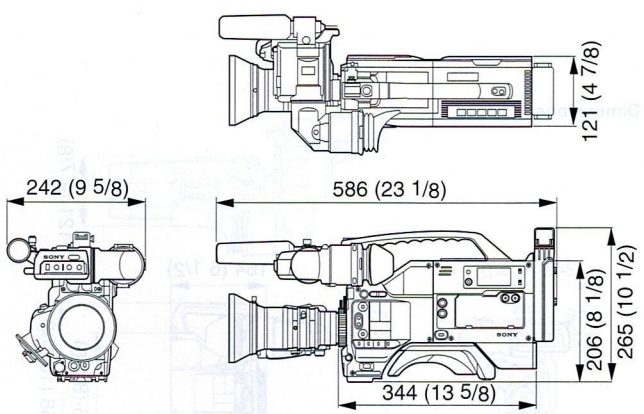
DSR-130P Camcorder

Power consumption:	24.8W (with DXF-701WSCE Viewfinder)
Mass:	7.5 kg (16 lb 8 oz) (incl. DXF-701WSCE viewfinder, microphone, VCL-918BY lens, NP-1B battery, videocassette, carrying handle)
Operating time:	60 min.
Dimensions (w/h/d):	121 × 206 × 344 mm (4 7/8 × 8 1/8 × 13 5/8 inches)

Product Configurations

	DSR-130PF1	DSR-130PK1	DSR-130PL1
DXC-D30P Camera head	Yes	Yes	Yes
DSR-1P Recorder	Yes	Yes	Yes
Handle for DSR-130P	Yes	Yes	Yes
DXF-701WSCE Viewfinder	Yes	Yes	Yes
External microphone	Yes	Yes	Yes
Shoulder strap	Yes	Yes	Yes
VCT-U14 Tripod adaptor	Yes	Yes	Yes
VCL-918BY Zoom lens	Yes	Yes	Option
LC-421 Carrying case	Yes	Option	Option
RM-LG1 Logger Unit	Yes	Yes	Yes

Dimensions



Unit: mm (inches)

PVW-D30P series

Betacam SP camcorder

•Betacam SP Camcorder with digital signal processing camera: PVV-3P docked with DXC-D30P via the Pro 50-pin connector •Status information and messages of the PVV-3P (time code, recording audio level, remaining battery power, remaining tape time, etc.) can be superimposed on the viewfinder •Playback capability with VA-300P •Compact and light weight 8.3 kg (18 lb 5 oz) in operation •Low power consumption: approx. 24.1 W •Lightweight rugged magnesium diecast body (CAMERA PART) •Large carrying handle for enhanced transportability and easier handling in low angle

Specifications

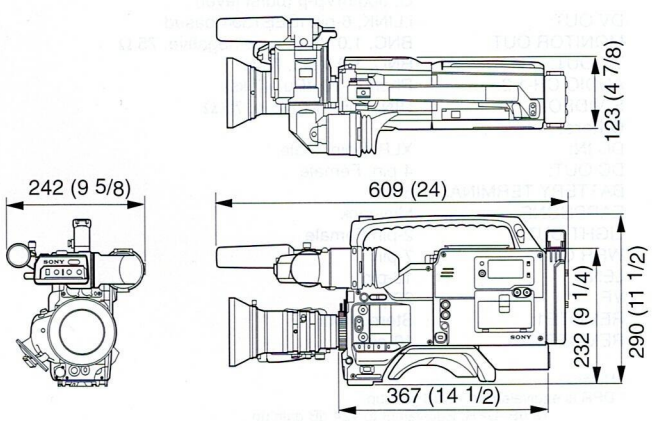
PVW-D30P Camcorder

Power consumption:	24.1W (with DXF-701WSCE Viewfinder)
Mass:	8.3 kg (18 lb 5 oz) (incl. DXF-701WSCE viewfinder, microphone, VCL-918BY lens, NP-1B battery, videocassette, carrying handle)
Operating time:	60 min.
Dimensions (w/h/d):	123 × 232 × 367 mm (4 7/8 × 9 1/4 × 14 1/2 inches)

Component chart

	PVW-D30PF	PVW-D30PK	PVW-D30PL
DXC-D30P Camera head	Yes	Yes	Yes
PVV-3P Recorder	Yes	Yes	Yes
Handle for PVW-D30	Yes	Yes	Yes
DXF-701WSCE Viewfinder	Yes	Yes	Yes
External microphone	Yes	Yes	Yes
Shoulder strap	Yes	Yes	Yes
VCT-U14 Tripod adaptor	Yes	Yes	Yes
VCL-918BY Zoom lens	Yes	Yes	Option
LC-421 Carrying case	Yes	Option	Option
RM-LG1 Logger Unit	Yes	Yes	Yes

Dimensions



Unit: mm (inches)

DSR-500WSP

Digital Camcorder

•Highly mobile one-piece design •Compact and lightweight: 6.3 kg (13 lb 14.2 oz) including viewfinder, microphone, lens, battery and tape •Compact crew package with the LC-DS300SFT or the LC-DS500 Carrying Case •Low power consumption: Camera head consumes only 24 W. •DynaFit™ shoulder pad for comfortable molding to any shoulder •Selectable four built-in filters: 3200 K/3000 K, 5600 K, 5600 K + 1/8, 5600 K + 1/64. •DSP (Digital Signal Processing) •Three 2/3-inch Power HAD WS™ CCDs for low smear level, high sensitivity and high S/N ratio •16:9 and 4:3 Switchable •Generates a 16:9 ID pulse automatically when shooting 16:9 images •Superb picture quality of the DVCAM format •Playback capability of consumer DV recorded tapes (SP mode only) •Long recording time; up to 184 minutes with a standard cassette and 40 minutes with a mini cassette •Digital output of i.LINK™ interface •ClipLink operation •TruEye™ process for faithful colour reproduction •DynaLatitude™ •Skin Detail with auto detection of active area •SetupLog™ function for automatic recording of camera setting data •SetupNavi™ function for camera setup file storage •Pool feed operation in which the DSR-500WSP can function as a recorder using the analogue composite signal from the distributor. (The optional DSBK-501P is required.) •Total Level Control System (TLCS) for automatically extended range of light control •EZ Focus and EZ mode for quick camera setup •Auto Tracing White Balance (ATW) function •Adjustable Black Stretch and Compress •Dual Zebra viewfinder indication of over exposure •Video light connection for Anton Bauer® Ultra Light 2 •Menu control by Jog Dial operation •Switch guard for preventing miss-operations. •Time code superimposed during playback •Edit Search function •Freeze Mix function •26-pin VTR interface capability

*Optional items are included

Specifications

GENERAL

Power requirements:	DC 7.2 V(Battery operation), DC 8.4 V(AC adaptor)
Power consumption:	11.6 W (during camera recording)
Operating temperature:	0 °C to 40 °C (32 °F to 104 °F)
Storage temperature:	-20 °C to 60 °C (-4°F to 140 °F)
Operating humidity:	Less than 85%
Storage humidity:	Less than 90%
Tape speed:	28.221 mm/s
Recording/Playback time:	Standard size: 184 min. w/PDV184ME Mini size: 40 min. w/PDVM40ME
Fast forward/Rewind time:	Standard size: Approx. 12 min. w/PDV184ME Mini size: Approx. 3 min. w/PDVM40ME
Continuous recording time:	Approx. 70 min. w/BP-L40 battery 140 min. w/BP-L60A battery 230 min. w/BP-L90A battery
Mass:	Approx. 3.6 kg (7 lb 15.0 oz) camera head only Approx. 4.4 kg (9 lb 11.2 oz) with VF and microphone Approx. 5.8 kg (12 lb 12.6 oz) with VF, microphone and lens Approx. 6.3 kg (13 lb 14.2 oz) with VF, microphone, lens, battery (BP-L40) and videocassette tape
Dimensions:(w/h/d):	121 × 192 × 280 mm (4 7/8 × 7 5/8 × 11 1/8 inches) (without projections) 242 × 247 × 547 mm (9 5/8 × 9 3/4 × 21 5/8 inches) (with projections)

CAMERA PART

Image device:	3-chip 2/3-inch, Interline-Transfer CCD
Optics:	F1.4 medium index prism system
Effective picture elements:	980 x 582 (H x V)
Total picture elements:	1038 x 594 (H x V)
Sensing area:	9.6 mm x 5.4 mm
Built-in filters:	1: 3200 K/3000 K 2: 5600 K+1/8 ND 3: 5600 K 4: 5600 K+1/64 ND
Lens mount:	Sony 2/3-inch bayonet mount
Signal system:	PAL colour system
Scanning system:	2:1 interlaced, 625 lines, 50 fields/s
Horizontal frequency:	15.625 kHz
Vertical frequency:	50 Hz
Sync system:	Internal and external with the VBS or BS signal
Horizontal resolution:	16:9 mode : 700TV lines 4:3 mode : 700TV lines
Vertical resolution:	480TV lines (w/o EVS), 530TV lines (w/EVS)
Minimum illumination:	0.5 lx with F1.4, Hyper gain (30 dB+DPR)* 0.8 lx with F1.8, Hyper gain (30 dB+DPR)*
Sensitivity:	F11 at 2000 lx (3200 K, 89.9% reflectance) (typical)
Gain selection:	-3 dB, 0 dB, 3 dB, 6 dB, 9 dB, 12 dB, 18dB, 18 dB + DPR, 24 dB, 24 dB+DPR, Hyper Gain (30 dB + DPR)*
Shutter speed selection:	OFF, 1/60, 1/250, 1/500, 1/1000, 1/2000 sec
Clear scan selection:	50.3 to 201.4 Hz
Signal-to-noise ratio:	61 dB (typical)
Registration:	0.05% (all zones, without lens)
Geometric distortion:	Below measurable level

VTR PART

VIDEO PERFORMANCE

Bandwidth:	Luminance: 25 Hz to 5.5 MHz + 1.0/-2.0 dB Chrominance: 25 Hz to 2.0 MHz +1.0/-2.0 dB
S/N ratio (luminance):	More than 55 dB
K-factor (K2T, KPB):	Less than 2.0%
Y/C delay:	Less than 30 nsec

AUDIO PERFORMANCE

Frequency response:	48 kHz: 20 Hz to 20 kHz +0.5/-1.0 dB 32 kHz: 20 Hz to 14.5 kHz +0.5/-1.0 dB
Dynamic range:	More than 80 dB
Distortion (THD)	Less than 0.08% (1 kHz reference level, 48 kHz)

INPUT/OUTOUT connectors

Signal inputs:

GENLOCK VIDEO IN:	BNC, 1.0 Vp-p, 75 Ω
TC IN:	BNC, 0.5 Vp-p to 18 Vp-p, 10 kΩ
EXT AUDIO CH-1/2:	XLR 3-pin x 2 Female, -60 dBu, 3 kΩ-/+4 dBu,10 kΩ
MIC IN:	XLR 3-pin Female
ANALOGUE VIDEO IN:	BNC, 1.0 Vp-p, 75 Ω (with DSBK-501P optional board installed)

Signal outputs:

VIDEO OUT:	BNC, 1.0 Vp-p, sync negative, 75 Ω, 26-pin Male
VBS:	1.0 Vp-p, sync negative
Y/R-Y/B-Y:	Y: 1.0 Vp-p, sync negative R-Y/B-Y: 525 mVp-p
Y/C:	Y: 1.0 Vp-p, sync negative C: 300 mVp-p (burst level)
DV OUT:	i.LINK, 6-pin IEEE1394-based
MONITOR OUT:	BNC, 1.0 Vp-p, sync negative, 75 Ω
TC OUT:	BNC, 1.0 Vp-p, 75 Ω
AUDIO CH-1/2:	Phono, -10 dBu, 47 kΩ
S-VIDEO:	DIN 4-pin, 1.0 Vp-p, 75 Ω

Others:

DC IN:	XLR 4-pin, Male
DC OUT:	4-pin, Female
BATTERY TERMINAL:	5-pin
EARPHONE:	Mini-jack
LIGHT OUT:	2-pin Female
WRR OUT:	7-pin
LENS:	12-pin
VF:	20-pin
REMOTE1:	Stereo mini
REMOTE2:	10-pin

<Notes>

* DPR is equivalent to +6 dB gain up.
  18 dB+DPR: Equivalent to +24 dB gain up
  24 dB+DRR: Equivalent to +30 dB gain up
  Hyper Gain (30 dB+DPR): Equivalent to +36 dB gain up
* The specifications for "Video/Audio performance" were measured by playing back material on the DSR-85P (via analogue component out) that had been recorded on the DSR-500WSP.
* 0 dBu = 0.775 Vrms

DSR-300P

Digital Camcorder

•Highly mobile one-piece design •Compact and lightweight: 5.7 kg (12 lb 9 oz) including viewfinder, microphone, lens, battery and tape •Compact crew package with the LC-300SFT Soft Carrying Case •DynaFit™ shoulder pad for comfortable molding to any shoulder •DSP (Digital Signal Processing) •Three 1/2-inch Power HAD™ CCDs for low smear level, high sensitivity and high S/N ratio •Superb picture quality of the DVCAM format •Playback capability of consumer DV recorded tapes (SP mode only) •Long recording time; up to 184 minutes with a standard cassette and 40 minutes with a mini cassette •ClipLink operation •TruEye™ process for faithful colour reproduction •DynaLatitude™ •Skin Detail with auto detection of active area •SetupLog™ function for automatic recording of camera setting data •Total Level Control System (TLCS) for automatically extended range of light control •EZ Focus and EZ mode for quick camera setup •Auto Tracing White Balance (ATW) function •Adjustable Black Stretch and Compress •Dual Zebra viewfinder indication of over exposure •Video light connection for Anton Bauer® Ultra Light 2 •Menu control by Jog Dial operation •Time code superimposed during playback •Edit Search function •Freeze Mix function •26-pin VTR interface capability

*Optional items are included

Specifications

Power requirements:	DC 12 V (11 to 17 V)
Power consumption:	20 W (w/o VF), 22.1 W (w VF)
Operating temperature:	0°C to 40°C (32°F to 104°F)
Storage temperature:	-20°C to 60°C (-4°F to 140°F)
Operating humidity:	Less than 85%
Storage humidity:	Less than 90%
Tape speed:	28.193 mm/s
Recording/Playback time:	
	Standard size:184 min. PDV184ME
	Mini size:40 min. PDVM40ME
Fast forward/Rewind time:	
	Standard size:Approx. 12 min. PDV184ME
	Mini size: Approx. 3 min. PDVM40ME
Continuous recording time:	
	Approx. 80 min. BP-L40, Approx. 180 min. BP-L60A, Approx. 290 min. BP-L90A
Mass:	Approx. 3.3 kg (7 lb 4 oz) for camera head only
	Approx. 4.1 kg (9 lb 1 oz) with VF and microphone
	Approx. 5.2 kg (11 lb 7 oz) with VF, microphone and lens
	Approx. 5.7 kg (12 lb 9 oz) with VF, microphone, lens, battery (BP-L40) and videocassette tape
Dimensions (w/h/d):	121 × 192 × 270 mm (4 7/8 × 7 5/8 × 10 3/4 inches) (without projections)
	242 × 247 × 534 mm (9 5/8 × 9 3/4 × 21 1/8 inches) (with projections)

CAMERA PART

Image device:	3-chip 1/2-inch, Interline Transfer CCD
Optics:	F1.4 medium index prism system
Effective picture elements:	
	752 × 582 (H × V)
Total picture elements:	795 × 596 (H × V)
Sensing area:	6.4 mm × 4.8 mm (equivalent to a 1/2-inch pickup tube)
Built-in filters:	1: 3200 K/3000 K (Switchable)
	2: 5600 K+1/8 ND
	3: 5600 K
	4: 5600 K+1/64 ND
Lens mount:	Sony 1/2-inch Bayonet mount
Signal system:	PAL colour system
Scanning system:	2:1 interlaced, 625 lines,50 fields/sec.
Horizontal frequency:	15.625 kHz
Vertical frequency:	50 Hz
Sync system:	Internal and external with the VBS or BS signal
Horizontal resolution:	800 TV lines
Vertical resolution:	480 TV lines (w/o EVS), 530 TV lines (w/EVS)
Minimum illumination:	0.5 lx with F1.4, Hyper gain (30 dB+ DPR)
	0.8 lx with F1.8, Hyper gain (30 dB+ DPR)
Sensitivity:	F 11 at 2000 lx (3200 K, 89.9% reflectance) (typical)
Gain selection:	-3 dB, 0 dB, 3 dB, 6 dB, 9 dB, 12 dB,18 dB,18 dB+ DPR, 24 dB, 24 dB+ DPR, Hyper Gain(30 dB+ DPR)
Shutter speed selection:	OFF, 1/60, 1/250, 1/500, 1/1000, 1/2000 sec
Clear scan selection:	50.3 to 201.4 Hz
Signal-to-noise ratio:	60 dB (typical)
Registration:	0.05% (all zones, without lens)
Geometric distortion:	Below measurable level

VTR PART

VIDEO PERFORMANCE

Bandwidth:	Luminance:25 Hz to 5.5 MHz +1.0/-2.0 dB
	Chrominance:25 Hz to 2.0 MHz +1.0/-2.0 dB
S/N ratio:	More than 55 dB
K-factor(K2T, KPB):	Less than 2.0%
Y/C delay:	Less than 30 nsec

AUDIO PERFORMANCE

Frequency response:	48 kHz: 20 Hz to 20 kHz +0.5/-1.0 dB
	32 kHz: 20 Hz to 14.5 kHz +0.5/-1.0 dB
Dynamic range:	More than 80 dB
Distortion (THD):	Less than 0.08% (1 kHz reference level, 48 kHz)

INPUT/OUTOUT connectors

Signal inputs:

GENLOCK VIDEO IN:	BNC, 1.0 Vp-p, 75 Ω
TC IN:	BNC, 0.5 Vp-p to 18 Vp-p, 10 kΩ
EXT AUDIO CH-1/2:	XLR 3-pin (2) Female, -60 dBu, 3 kΩ-/+4 dBu, 10 kΩ
	MIC IN: XLR 3-pin Female

Signal outputs:

VIDEO OUT:	BNC, 1.0 Vp-p, sync negative, 75 Ω
	26-pin connector:
	VBS: 1.0 Vp-p, sync negative
	Y/R-Y/B-Y: Y: 1.0 Vp-p, sync negative
	R-Y/B-Y: 525 mVp-p
	Y/C: Y: 1.0 Vp-p, sync negative
	C: 300 mVp-p (burst level)
	MONITOR OUT: BNC, 1.0 Vp-p, sync negative, 75 Ω
	TC OUT: BNC, 1.0 Vp-p, 75 Ω
	AUDIO CH-1/2: RCA pin, -10 dBu, 47 kΩ
	S-VIDEO: DIN 4-pin, 1 Vp-p, 75 Ω

Other:

DC IN : XLR 4-pin, Male
DC OUT: 4-pin, Female
BATTERY TERMINAL: 5-pin
EARPHONE: Mini-jack
LIGHT OUT: 2-pin Female
WRR OUT: 7-pin
LENS: 14-pin hot-shoe type or 12-pin
VF: 20-pin
REMOTE1: Stereo mini
REMOTE2: 10-pin

Notes: *DPR is equivalent to +6 dB gain up.

18 dB+ DPR:	Equivalent to +24 dB
24 dB+ DRR:	Equivalent to +30 dB
Hyper Gain (30 dB+ DPR):	Equivalent to +36 dB

DSR-200AP

Digital Camcorder

•Compact and lightweight: 4.7 kg (10 lb 8 oz) including tape and battery holder with three battery packs •DSP (Digital Signal Processing) •Three 1/3-inch CCDs for accuracy of colour reproduction •Superb picture quality of the DVCAM format •Playback capability of consumer DV recorded tapes (SP mode only) •Long recording time; up to 184 minutes with a standard cassette* •Super SteadyShot™ (Optical) function for stable picture shooting without sacrificing picture quality •Time/date data superimposition on output pictures •Easy-to-use viewfinder, with high horizontal resolution •Photo mode and frame interpolation for recording clear frame picture for seven seconds •Audio dubbing capability (32 kHz/12-bit only) •Time code capability •i.LINK™ (DV In/Out) interface** based on the IEEE1394 standard •LANC interface for simple editing with a LANC-based recorder or editing system •RMT-807/806 Remote Controller (supplied) for control of basic functions

* The DSR-200AP accepts only standard DVCAM and DV cassettes.
** The model for European area has output only.

Supplied accessories:	Wireless Remote Commander and R6 batteries (2) RMT-807 (for European area) RMT-806 (for PAL areas except Europe) AV stereo cable S cable Lens cap Shoulder pad Side pad Operation manual Lithium battery CR2025
Optional accessories:	ACC KIT-201 Accessory kit AC-V900 AC adaptor/charger(with DK-715) NP-F950 Rechargeable battery pack NPA-10000 Battery adaptor VMC-IL4415 i.LINK cable VMC-IL4435 i.LINK cable VMC-IL4615 i.LINK cable VMC-IL4635 i.LIINK cable

Specifications

GENERAL

Power requirement:	DC 7.2 V (Battery operation), DC 8.4 V (AC adaptor)
Power consumption:	11.6 W (during camera recording)
Operating temperature:	0 °C to 40 °C (32 °F to 104 °F)
Storage temperature:	-20 °C to 60 °C (-4 °F to 140 °F)
Dimensions (w x h x d):	216 × 237 × 474 mm (8 5/8 × 9 3/8 × 18 3/4 inches)
Mass:	Approx. 3.6 kg (7 lb 15 oz) (without batteries and tape) Approx. 4.7 kg (10 lb 8 oz) (with a tape and three NP-F950 in NPA-10000/B)

LENS PART

Zoom:	10:1 variable speed zoom lens(f = 5.9 to 59 mm) (20 x Digital Zoom)
Filter diameter:	52 mm
Iris:	Auto/Manual (F1.6 to 11) and Close

CAMERA PART

Image device:	3-chip 1/3-inch, Interline-Transfer CCD
Effective picture elements:	440,000 pixels, 752 × 582 (H × V)
Total picture elements:	470,000 pixels, 795 × 596 (H × V)
Signal system:	CCIR standard, PAL colour system
Scanning system:	2:1 interlaced, 625 lines, 50 fields/sec.
Gain selection:	Auto/Manual (-3, 0, 3, 6, 9, 12, 15, 18 dB)
Shutter speed selection:	Auto/Manual (1/3, 1/6, 1/12, 1/25, 1/50, 1/100, 1/215, 1/425, 1/1000, 1/1750, 1/3500, 1/10000 sec.)
White balance:	ATW/One-push auto/5800 K/3200 K
Minimum illumination:	3 lx
Recommended illumination:	More than 100 lx
Viewfinder:	1-inch black and white CRT
Built-in microphone:	One-point stereo-type electret condenser microphone directivity selectable (0°/90°/120°)
Built-in speaker:	Dynamic speaker

VTR PART

Tape speed:	Approx. 28.2 mm/s.(DVCAM mode)
Maximum recording time:	184 minutes (with PDV-184ME)
Video signal:	CCIR standard, PAL colour system
Audio signal:	REC: 48 kHz/16-bit, 32 kHz/12-bit, PB:48 kHz/16-bit, 32 kHz/12-bit, 32 kHz/16-bit, 44.1 kHz/16-bit

INPUT/OUTPUT connectors

Audio input:	XLR 3-pin (2) (MIC/LINE selectable) Stereo mini jack (1)
Video outputs:	Composite: BNC (1), RCA pin jack (1), 1.0Vp-p, 75 Ω Sync negative S-Video: 4-pin mini-DIN connector (1) Y: 1.0 Vp-p, 75 Ω unbalanced C: 300 mVp-p (subcarrier burst), 75 Ω, unbalanced
Audio output:	RCA PIN jack (2) (L, R)
Digital input/output:	i.LINK(DV IN/OUT), IEEE1394-based, 4-pin (1) *The model for European area has output only.
LANC:	Stereo mini-mini jack (1)
Headphone:	Stereo mini jack (1)
RFU DC output:	Special mini jack (1) (DC 5 V)
External DC input:	4-pin for DK-715 cable
Viewfinder interface:	8-pin connector

DSR-PD100AP

Digital Camcorder

•Compact and handy:1 kg (2.2 lb) with a battery and a tape •Superb picture quality of the DVCAM format •1/4-inch 3CCDs:progressive/interlace scan switchable •Still image recording on both tape or removable media, such as "Memory Stick"™ •Super SteadyShot™ function with new optical system •Extreme close-up shots with x48 digital and x12 optical zoom •Manual Control and Full Range Auto modes •Switchable 4:3 and 16:9 recording modes •Playback capability of consumer DV recorded tapes(SP mode only) •i.LINK(DV In/Out) interface based on the IEEE1394 standard •16-bit/12-bit PCM audio stereo •Audio dubbing capability •Audio lock mode •3.5-inch LCD screen which turns 90 degrees horizontally and 270 degrees vertically. •Precision colour viewfinder oBuilt-in Memory card slot •InfoLITHIUM™ system: Lithium-ion battery power system which shows the amount of power remaining in the battery, with an accuracy of one minute

*Optional items are included

Supplied accessories:	AC-L10 AC adaptor
	NP-F330 Rechargeable lithium-ion battery pack
	RMT-811 Remote commander and R6 batteries (2)
	MSA-4A "Memory Stick" IC recording media
	MSAC-PC2 "Memory Stick"/PC card adaptor
	Special stereo AV cable
	XLR adaptor
	DV cable(Europe only)
	Wide conversion lens, Lens hood
	Lens cap, Lens hood, Carrying belt
Optional accessories:	ECM-670 Professional microphone
	CAC-12 Microphone holder
	EC-0.3C2/EC-0.5C2 Microphone cable
	NP-F950 InfoLITHIUM rechargeable battery pack
	NP-F750 InfoLITHIUM rechargeable battery pack
	NP-F730 InfoLITHIUM rechargeable battery pack
	NP-F550 InfoLITHIUM rechargeable battery pack
	VMC-IL4415 i.LINK Cable
	VMC-IL4435 i.LINK Cable
	VMC-IL4615 i.LINK Cable
	VMC-IL4635 i.LINK Cable
	MSA-4A/8A/16A/32A/64A "Memory Stick" IC recording media

Specifications

GENERAL

Power requirements:	DC 7.2 V (Battery), DC 8.4 V (AC Adaptor)
Power consumption:	4.3 W using the viewfinder/5.3 W using the LCD
Operating temperature:	0 °C to 40 °C (32 °F to 104 °F)
Storage temperature:	-20 °C to 60 °C (-4 °F to 140 °F)
Dimensions (w x h x d):	93 × 112 × 193.5 mm (3 ¾ × 4 ½ × 7 ⅝ inches)
Mass:	Approx. 900 g (1 lb 15 oz)

LENS PART

Zoom:	12:1 variable speed (1.88-26.5 sec) zoom lens, f = 4.3 to 51.6 mm, F1.6 to 2.8;
Filter diameter:	52 mm
Focus:	Auto/Manual (ring)/Infinity

CAMERA PART

Imaging device:	3-chip 1/4-inch, Interline-Transfer CCD
Effective picture elements:	400,000 pixels
Total picture elements:	450,000 pixels
Signal system:	CCIR standard, PAL colour system
Scanning system:	Progressive/Interlace
Horizontal resolution:	500 TV lines
Shutter speed:	1/4 to 1/10000 seconds
White balance:	ATW/One-push/Outdoor/Indoor
Exposure:	Auto/Manual (Exposure dial, Program AE)
Minimum illumination:	4 lx
Viewfinder:	180,000 dot Colour LCD, Zebra pattern
Built-in microphone:	Stereo electret condenser microphone
Built-in speaker:	Dynamic speaker
LCD:	TFT active matrix, 3.5-inch 184,580 dots (839 x 220)

VTR PART

Tape speed:	Approx. 28.2 mm/s (DVCAM mode)
Maximum recording time:	40 minutes (with PDVM-40ME)
Video signal:	CCIR standard, PAL colour system
Audio signal:	REC: 48 kHz/16-bit, 32 kHz/12-bit
	PB: 48 kHz/16-bit, 32 kHz/12-bit
	32 kHz/16-bit, 44.1 kHz/16-bit

INPUT/OUTPUT connectors

Audio/Video input/output:	Special AV mini (converts to RCA pin jack) (1)
Video input/output:	S-Video IN/OUT: Mini-DIN 4 pin (1)
Mic input:	Stereo mini (1)
Digital input/output:	i.LINK(DV IN/OUT), IEEE1394-based, 4-pin (1)
LANC:	Stereo mini-mini jack(1)
Headphone:	Stereo mini jack(1)
External DC input:	8.4V from AC-L10 AC adaptor

Memory Card Slot

PC Card Standard ATA specifications Type II

Power requirement:	3.3/5 V
Capacity:	2 MB to 64* MB (*When formatted by DSR-PD100AP)
Recording signals:	Camera signal, VTR signal
Image size:	VGA(640x480)
Image compression:	JPEG

*"Memory Stick" and MEMORY STICK are trademarks of Sony Corporation.

DSR-PD1P

Digital Camcorder

•Compact and handy: 520 g (1.2 lb) •1/3-inch CCD •Superb picture quality of the DVCAM format •Playback capability of consumer DV recorded tapes (SP mode only) •40 minutes recording time with a mini cassette* •Super SteadyShot™ function for stable picture shooting without sacrificing picture quality •Extreme close-up shots with x20 digital and x10 optical zoom •2 1/2-inch colour LCD monitor •Colour viewfinder •InfoLITHIUM™ system; Lithium-ion battery power system which shows the amount of power remaining in the battery, with an accuracy of one minute •Photo mode for high quality still images •A/V digital fade-to-black/silence function (Fade in from black/silence) •Audio dubbing capability (32 kHz/12-bit only) •Time code capability •i.LINK (DV In/Out) interface based on the IEEE1394 standard •LANC interface for simple editing with a LANC-based recorder or editing system

*The DSR-PD1P accepts only mini DVCAM and DV cassettes.

Supplied accessories:	RMT-806 Wireless Remote Control and R6 batteries
	Special stereo AV cable
	S cable
	Vanadium-Lithium Battery (Built-in)
	AA Batteries for remote control(2)
Optional accessories:	ACC KIT-PD1P Accessory Kit
	AC-V100/B AC adaptor/charger (with DK626)
	NP-F220/B InfoLITHIUM rechargeable battrery pack(1400 mAh)
	VMC-LM7 LANC/Microphone Adaptor
	VMC-IL4415 i.LINK Cable
	VMC-IL4435 i.LINK Cable
	VMC-IL4615 i.LINK Cable
	VMC-IL4635 i.LINK Cable

Specifications

GENERAL

Power requirements:	DC 7.2 V (Battery operation), DC 8.4 V (AC adaptor)
Power consumption:	6.0W (LCD on), 5.0W (LCD off)
Operating temperature:	0 °C to 40 °C (32 °F to 104 °F)
Storage temperature:	-20 °C to 60 °C (-4 °F to 140 °F)
Dimensions (w x h x d):	59 x 129 x 118 mm (2 3 /8 x 5 1 /8 x 4 5 /8 inches)
Mass:	520 g (1.1 lb) (Without battery and tape)

LENS PART

Zoom:	10:1 variable speed zoom lens (1.0 to 29 seconds at stand -by, 1.5 to 29 seconds at recording)
	f = 4.0 to 40 mm; F1.8 to 2.6
Filter diameter:	37 mm
Focus:	Auto/Manual/Infinity

CAMERA PART

Imaging device:	1/3-inch, Interline-Transfer CCD
Effective picture elements:	400,000 pixels
Total picture elements:	810,000 pixels
Signal system:	CCIR standard, PAL colour system
Scanning system:	Interlace
Shutter speed:	1/50 to 1/4,000 second (In AE mode)
White balance:	Auto/Hold/Outdoor/Indoor
Exposure:	Auto
Minimum illumination:	3 lux at F1.8
Viewfinder:	0.55-inch 113000 dots colour viewfinder
Built-in microphone:	Stereo-type electret condenser microphone
Built-in speaker:	Piezo-electric-speaker
LCD:	TFT active matrix, 2.5-inch
	84,485 dots (384 x 220)

VTR PART

Tape speed:	Approx. 28.2 mm/s (DVCAM mode)
Maximum recording time:	40 min. (PDVM-40ME)
Maximum recording time with LCD:	
	95 min. (NP-F220/B, Fully charged)
Video signal:	CCIR standard, PAL colour system
Audio signal:	REC: 48 kHz/16-bit, 32 kHz/12-bit
	PB: 48 kHz/16-bit, 32 kHz/12-bit
	32 kHz/16-bit, 44.1 kHz/16-bit

INPUT/OUTPUT connectors

Audio/Video output:	Special AV mini
	(converts to RCA pin jack) (1)
Video input/output:	S-Video IN/OUT: Mini-DIN 4 pin (1)
Headphone:	Stereo mini jack(1)
LANC:	Available through 26-pin multi connector (using optional, VMC-LM7)
Mic input:	Available through 26-pin multi connector (using optional, VMC-LM7)

DXC-327BP series

3-chip CCD colour video camera

•Directly dockable not only with current analog VTR's/CA's but also with Digital Recorder (DSR-1P) •High sensitivity of F9.0 at 2000 lx and a low smear level (1/10 of the conventional camera) given by three Sony 1/2-inch IT Power HAD (Hole Accumulated Diode) sensors •700TV lines of horizontal luminance resolution thanks to the high density CCD chips (470,000 total picture elements/440,000 effective picture elements) and Sony's original spatial offset technology •The Power HAD sensor structure in combination with advanced electronic circuitry allows an excellent S/N ratio of •Electronic shutter equipped •2-line image enhancer for crisp image •Modular design allows choice of combo stand-alone or multi-camera use •Can be combined with the DSR-1P DVCAM Digital Recorder, allowing simple ClipLink function •Can be docked directly with the PVV-1AP/3P for high quality component acquisition •Can be combined with S-VHS recorders from Panasonic or JVC via the CA-512P or CA-513 Camera Adaptor •When cambined with CA-537P, 26-pin connector on camera adaptor provides signal output in Y/R-Y/B-Y, VBS, Y/C and RGB forms for connection with various equipment •The DXF-601CE: Diecast alminum body, 600TV lines of horizontal resolution, the large eye cup for easy viewing, external TALLY and a new dioptre mechanism for easier dioptre adjustment •Compact size, lightweight, and low power consumption •VCL-714BX cableless 14 × zoom lens •Convenient built-in microphone •Safety Zone and Centre Marker indications in viewfinder •Built-in character generator can generate letters and numbers for titles and dates •5 step auto iris override (+1F stop/+0.5F stop/Preset/-0.5F stop/-1.0F stop) •Convenient gain-up function (0/+9/+18dB) •Zebra video level indication •Two memory white balance system •ABL (Automatic Black Level) function •RM-M7G remote connector on camera head for remote control in any configuration •Extended system versatility with optional CA-325AP/325B Camera Adaptors, RM-M7G Remote Control Unit, and CCU-M7P/M5P

*Camera adaptor is optional

Specifications

General

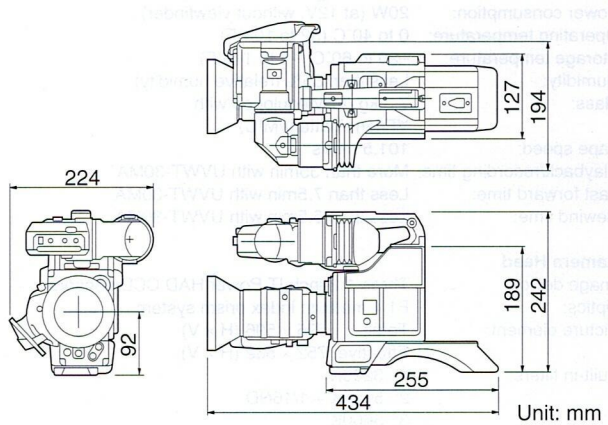
Image device:	1/2-inch Interline Transfer CCD (×3), 795 (H) × 596 (V) total picture elements 752 (H) × 582 (V) effective picture elements
Electronic viewfinder:	1.5-inch monochrome (except DXC-327BPH)
Lens:	F1.4, 7.5 to 90mm zoom lens with auto iris/macro mechanism (DXC-327BPF/327BPK)
Lens mount:	Bayonet-mount
Video signal system:	PAL standard
Horizontal resolution:	700TV lines
Minimum illumination:	6.0 lx with F1.4, +18dB
Sensitivity:	F9.0 at 2000 lx
Sync system:	Internal or external selectable
S/N ratio:	61dB
Power requirements:	DC 12V
Power consumption:	8.0W (without VF/CA-537P)
Operating temperature:	–5 to 45°C (23 to 113°F)
Mass:	2.0 kg (4 lb 6 oz, for camera head only) 3.3 kg (7 lb 4 oz, with the CA-537P)

Inputs/Outputs

VTR/CCU/CMA:	Sony Z-type, 26-pin
VIDEO OUT:	BNC-type
GENLOCK:	BNC-type
MIC IN:	XLR-type, 3-pin
LENS:	Hot-shoe type or 6-pin (for 2/3-inch lens)
REMOTE:	10-pin
VF:	DIN 8-pin
DC IN:	XLR-type, 4-pin
EARPHONE:	mini jack
INTERCOM:	mini intercom jack

Composition \ Model	DXC-327BPF	DXC-327BPK	DXC-327BPL	DXC-327BPH
Colour video camera head	Yes	Yes	Yes	Yes
Tripod adaptor VCT-U14	Yes	Yes	Yes	Option
Viewfinder DXF-601CE	Yes	Yes	Yes	Option
Zoom lens VCL-714BX	Yes	Yes	Option	Option
Carrying case LC-421	Yes	Option	Option	Option

Dimensions



Unit: mm

UVW-100BP

Betacam SP One-Piece Camcorder

•High performance one-piece camcorder •Incorporates three 1/2-inch IT Power HAD sensors •High quality Betacam SP component recording format •High sensitivity of F11.0 at 2000 lx, high signal to noise ratio of 58dB, high horizontal resolution of 700TV lines •Compact and light weight approx. 7.3 kg including the viewfinder, battery, cassette and lens •Low power consumption of 20W •More than 35 minutes of recording time using the S-size metal Betacam SP cassette •Programmable gain up (0 to 18dB) •ATW (Auto Tracing White Balance) •Total Level Control System provides optimum adjustments for any lighting conditions: AGC (Automatic Gain Control), AE (Auto Exposure) and Intelligent Auto Iris •Built-in safety zone and centre marker generator in the viewfinder •Two memories for white balance value •×14 zoom lens: VCL-714BX (supplied with the UVW-100BPF/BPK) •1/2-inch bayonet mount •Variable electronic shutter •Clear Scan function (50.0 to 201.5Hz) •Camera gen-lock and Time Code gen-lock capability •The 26-pin interface provides component, composite and Y/C video signal to an external VTR for simultaneous recording •Built-in time code generator and reader •Real Time/Date recording function •Two longitudinal audio channels with the Dolby C-Type NR (Noise Reduction) system •Recording review and back space editing function •Colour playback in the field with the optional VA-300P Playback Adaptor •8-digit LCD display •Bargraph meter for audio level and battery status •Built-in earspeaker •External microphone power supply (+48V, Ch-1/2)

Optional accessories:	Battery pack NP-1B, BP-90A Battery charger BC-1WDCE, BC-410CE Battery adaptor DC-520, DC-500 AC adaptor AC-550CE AC power adaptor CMA-8ACE Playback adaptor VA-300P Remote controller RM-81 Carrying case LC-421 Rain cover LCR-1 26/26-pin cable CCZ-A cable 14/26-pin cable CCZQ-A cable Tripod adaptor VCT-U14
Supplied accessories:	Tripod adaptor External Michrophone Shoulder strap Viewfinder ×14 zoom lens Carring case Operational manual

Specifications

General

Type:	One-piece camcorder
Power requirements:	DC 12V $^{+5.0}_{-1.0}$ V
Power consumption:	20W (at 12V, without viewfinder)
Operating temperature:	0 to 40°C (32 to 104°F)
Storage temperature:	–20 to 60°C (–4 to 140°F)
Humidity:	Less than 85% (relative humidity)
Mass:	7.3 kg (fully equipped with VF/lens/battery/MIC)
Tape speed:	101.5 mm/s
Playback/recording time:	More than 35min with UVWT-30MA
Fast forward time:	Less than 7.5min with UVWT-30MA
Rewind time:	Less than 5.5min with UVWT-30MA

Camera Head

Image device:	Three 1/2-inch IT Power HAD CCD sensors
Optics:	F1.4 medium index prism system
Picture element:	Total: 795 × 596 (H × V) Effective: 752 × 582 (H × V)
Built-in filters:	1: 3200K 2: 5600K + 1/16ND 3: 5600K
Lens mount:	1/2-inch bayonet
Video signal aystem:	PAL (colour)

Horizontal resolution:	700TV lines
Minimum illumination:	4.0 lx with F1.4 +18dB
Sensitivity:	F11.0 at 2000 lx
Gain selection:	0dB MID (1dB to 17dB in 1dB steps) HIGH (2dB to 18dB in 1dB steps) (MID < HIGH) 0dB to 18dB variable (AGC)
Shutter speed selection:	OFF, 1/60, 1/250, 1/500, 1/1000, 1/2000s
Clear Scan range:	50.0Hz to 201.5 Hz
S/N ratio:	58dB
Registration:	0.05% (all zone, without lens)
Geometric distortion:	Below measurable level
Camera:	VBS: 1.0Vp-p, sync negative
26-pin connector:	VBS: 1.0Vp-p, sync negative Y: 1.0Vp-p, 75Ω, sync negative R-Y/B-Y: 0.525Vp-p Y/C: {Y}; 1.0Vp-p, 75Ω, sync negative {C}; 0.3Vp-p (burst level)

VTR Portion

Video

Recording system:	Rotary 4-head helical scan system R-Y/B-Y: FM recording (CTDM) Y: FM recording
Time Code IN (BNC):	0.5V to 5Vp-p, 10kΩ
Time Code OUT (BNC):	1.0Vp-p, 75Ω

Audio

Input:	MIC: –60dBu, 3kΩ, balanced Line: +4dBu, 10kΩ, balanced

Video Performance

Bandwidth:	Y: 25Hz to 5.0MHz $^{+1.0}_{-4.0}$ dB R-Y/B-Y: 25Hz to 1.5MHz $^{+1.0}_{-4.0}$ dB
S/N ratio:	Y (Component IN/OUT): More than 46dB R-Y/B-Y: More than 47dB
Distortion:	K-factor: Less than 3% Y/C delay: Less than 30ns

Audio Performance

Frequency response (20dB below peak level):	50Hz to 12.5kHz $^{+2.0}_{-3.0}$ dB
S/N ratio (at peak level* CCIR 468-3):	More than 60dB
Distortion (at 1kHz, operational level (+4dBu)):	Less than 1.5%
Wow and flutter:	Less than 0.18%rms

Connectors

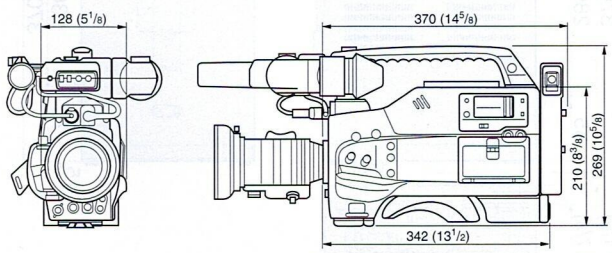
Playback adapter:	20-pin
External VTR Connector:	26-pin
Camera Video OUT:	BNC (2)
Camera GEN LOCK IN:	BNC
Camera MIC IN:	XLR (3-pin) with 48V OUT
Audio IN:	XLR (2) (3-pin) with 48V OUT selectable
Headphone OUT:	Stereo mini jack
Remote:	Stereo mini jack
Lens:	12-pin (for 2/3-inch lens)
DC IN:	XLR 4-pin (for the optional CMA-8ACE)
Time Code IN:	BNC
Time Code OUT:	BNC

1. Production video cameras/camcorders

Component Chart

	UVW-100BPF	UVW-100BPK	UVW-100BPL
Camcorder UVW-100BP	Yes	Yes	Yes
External microphone	Yes	Yes	Yes
Shoulder strap	Yes	Yes	Yes
Tripod adapter VCT-U14	Yes	Yes	Yes
Viewfinder DXF-601CE	Yes	Yes	Yes
Zoom lens VCL-714BX	Yes	Yes	Option
Carring case LC-421	Yes	Option	Option

Dimensions



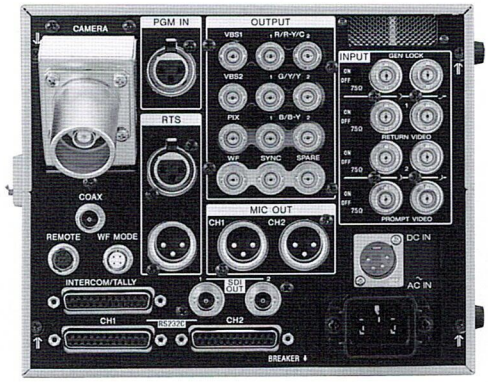
Unit: mm (inch)

* Peak level = +8dB above operational level.

CCU-TX7P

Camera Control Unit

•Triax camera control unit for the DXC-D30P/D30WSP •Runs either on AC or DC (12 V) power •High speed high quality data transmission •High quality triax transmission •Long distance transmission, up to 1125mm via (phi)13.2mm cable (Belden) and up to 750m via Ø8.5mm cable (Fujikura, Belden) •Two SDI outputs •Two component video outputs (selectable from Y/R-Y/B-Y, R/G/B and Y/C) in addition to two composite output •Two inputs for return video •Colour teleprompter compatible •Flexible intercom system •Program microphone system •RS-232C port •Coaxial control capability •Half a 19-inch rack size wide and 4 units high



Supplied accessories:
- AC power cord (1)
- Plug holder for AC power cord (1)
- Number plate (1 set)
- Operation manual (1)

Specifications

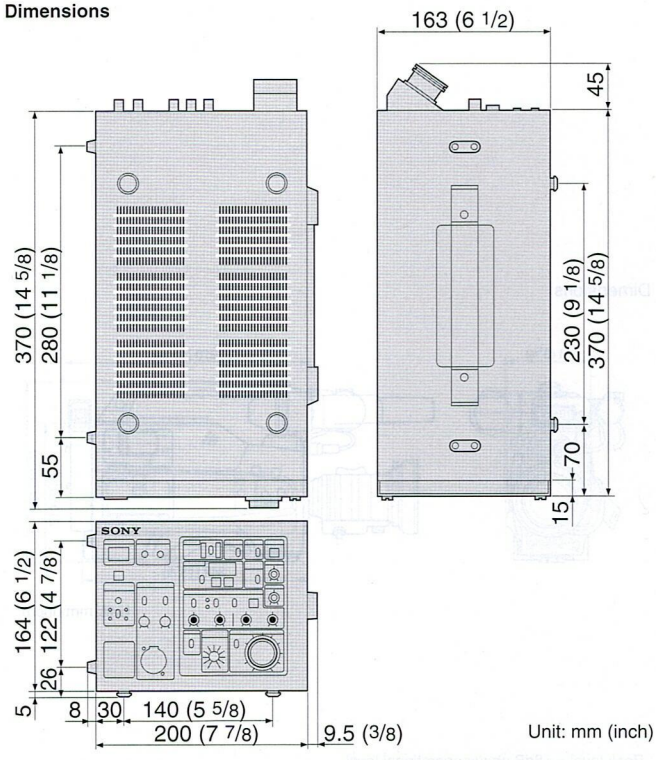
Input connectors:
- GEN LOCK: BNC type, loopthrough, VBS/BS, 1.0Vp-p, 75 Ω
- RETURN (1,2): BNC type, loopthrough, VBS, 1.0 Vp-p, 75 Ω
- PROMPT (prompter): BNC type, loopthrough, VBS, 1.0 Vp-p, 75 Ω
- PGM IN: XLR 3-pin (1)

Output connectors:
- VBS (1,2): BNC type, VBS, 1.0 Vp-p, 75 Ω
- (*)Y/R-Y/B-Y (1,2): BNC type, Y: 1.0Vp-p, 75 Ω, R-Y/B-Y: 525mVp-p, 75 Ω
- (*)R/G/B (1,2): BNC type, 700mVp-p, 75 Ω
- (*)Y/C (1,2): BNC type, Y: 1.0Vp-p, 75 Ω, C: 300mVp-p, 75 Ω
- SDI (1,2): conform to serial digital interface (270 Mbps), 0.8 Vp-p, 75 Ω
- SYNC: BNC type, VBS, 0.3 Vp-p, 75 Ω, negative
- PIX (picture monitor): BNC type, 1.0 Vp-p, 75 Ω
- WF (waveform monitor): BNC type, 700 mVp-p, 75 Ω (Encoded output: 1.0 Vp-p, 75 Ω)
- WF MODE: 4-pin (1)
- MIC OUT (CH-1/2): XLR 3-pin (2), 0dBu/–20dBu balanced, 2 channels

Camera control input/output connectors:
- CAMERA: Triax (Fischer type) (1)
- COAX: BNC type (1)
- REMOTE: 10-pin
- INTERCOM/TALLY: D-sub 25-pin (1) 4W/2W TALLY: 24V DC, TTL level or contact selectable
- INTERCOM (Front): XLR 5-pin (1)
- RTS: XLR 3-pin (1)
- RS232C: D-sub 25-pin (2)

Power requirements: AC 220 to 240V or DC 10.5 to 17.0V
Power consumption: 95W max.
Cable length: 1500 m max. (±14.5 mm)
Operating temperature: 5°C to 40°C (41°F to 104°F)
Storage temperature: –20°C to 55°C (–4°F to 131°F)
Mass: Approx. 8.45 kg (18 lb 10 oz)
Dimensions: 218 (W) × 169 (H) × 415 (D) mm ($8\frac{5}{8} \times 6\frac{3}{4} \times 16\frac{3}{8}$ inches)

Dimensions



Unit: mm (inch)

(*) These CCU output signals can be selected to be R/G/B or Y/R-Y/B-Y or Y/C.
(Note: This product is not available in some countries.)

CCU-M7P

Camera control unit for DXC-D30P/D30WSP/327BP series

•Remote Control of DXC-D30P/D30WSP/637P/327BP series colour video camera with maximum cable length of 300m •Scene File memory for up to four shooting conditions •VBS, R/G/B, Y/R-Y/B-Y, Y/C outputs •XLR connector for MIC output •Built-in AC power supply •19-inch rack mountable and 2-units high

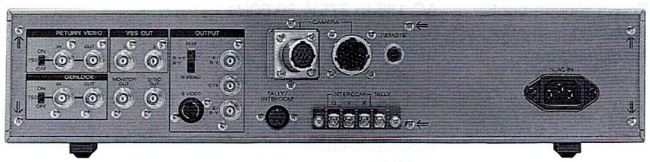
Specifications

Power requirements:	AC 185 to 275V, 50/60Hz
Power consumption:	62W
Inputs/outputs:	VBS OUT (2); BNC-type, 1.0Vp-p, sync negative, 75Ω R/G/B OUT; BNC-type, 700mVp-p, 75Ω Y/R-Y/B-Y OUT; BNC-type, Y: 1.0Vp-p, sync negative, 75Ω R-Y/B-Y: 525mVp-p (75% colour bars) Y/C OUT; Y/C connector (4-pin), Y] 1.0Vp-p, sync negative, 75Ω C] 300mVp-p, 75Ω SYNC OUT; BNC-type, 4.0Vp-p, 75Ω, negative GENLOCK IN; BNC-type, VBS (1.0Vp-p) or BS (300mVp-p), loop through RET VIDEO IN; BNC-type, VBS, 1.0Vp-p, loop-through CAMERA; Sony Z-type, 26-pin TALLY/INTERCOM; DIN 4-pin or screw terminals MIC OUT; XLR-type, 3-pin, –20dBu
Control:	Gain select Output mode select Status display ON/OFF Shutter speed select Iris (auto/manual) White balance (auto/manual/preset) R/B gain Black balance (auto/manual/preset) Master pedestal R/B pedestal Gamma (manual/preset) Master gamma R/B gamma Knee point (auto/manual/preset) Detail level Sub-carrier phase Horizontal phase Scene File operation Tally/Intercom
Operating temperature:	–10 to 45°C (14 to 113°F)
Dimensions:	Approx. 424 (W) × 103 (H) × 387 (D) mm ($16^{3}/_{4} \times 4^{1}/_{8} \times 15^{1}/_{4}$ inches)
Mass:	8.5 kg (18 lb 12 oz)
Supplied accessories:	AC power cord Rack mount metals
Optional cables: (CCU-M7P ↔ DXC-D30P/D30WSP/327BP series)	CCZ-A2 (2m) CCZ-A5 (5m) CCZ-A10 (10m) CCZ-A25 (25m) CCZ-A50 (50m) CCZ-A100 (100m)

CCU-M5P

Camera control unit for DXC-D30P/D30WSP/ 327BP/950P/9100P

•Directly interfaces with both Z-type (26-pin) and Q-type (14-pin) camera systems •Also interfaces with DXC-950P/ 9100P via CCTZ/CCZ-A or CCTQ/CCQ-AM combination •Remote control operation with maximum cable lengths of 300m for Z-type and 100m for Q-type cable VBS, R/G/B, Y/R-Y/B-Y, Y/C output •Built-in AC power unit •19-inch rack mountable and 2-units high



Specifications

Power requirements:	AC 187V to 275V, 50/60Hz
Power consumption:	54W
Inputs/outputs:	VBS OUT (2); BNC-type, 1.0Vp-p, sync negative, 75Ω R/G/B OUT; BNC-type, 700mVp-p, 75Ω Y/R-Y/B-Y OUT; BNC-type Y: 1.0Vp-p, sync negative, 75Ω R-Y/B-Y: 525mVp-p (75% colour bars) Y/C OUT; Y/C connector (4-pin), [Y] 1.0Vp-p, sync negative, 75Ω [C] 300mVp-p, 75Ω SYNC OUT; BNC-type, 4.0Vp-p, 75Ω, negative GENLOCK IN; BNC-type, VBS(1.0Vp-p) or BB(450mVp-p), loop-through RET VIDEO IN; BNC-type, VBS, 1.0Vp-p, loop-through CAMERA; Sony Q-type, 14-pin Sony Z-type, 26-pin TALLY/INTERCOM; DIN 4-pin or screw terminals
Control:	Gain select Output mode select Status display Shutter speed select Iris (auto/manual) White balance (auto/manual/preset) Black balance (auto/manual/preset)*1 R/B gain Master pedestal R/B pedestal*2 Gamma (DXC-950P/9100P only) Knee point (auto/manual/preset)*1,2 Detail level Sub-carrier phase Horizontal phase Tally/Intercom*1,2
Operating temperature:	5 to 40°C (41 to 104°F)
Dimensions:	Approx. 424 (W) × 103 (H) × 321 (D) mm ($16^{3}/_{4} \times 4^{1}/_{8} \times 12^{3}/_{4}$ inches)
Mass:	5.9 kg (13 lb)
Supplied accessories:	AC power cord Rack mount brackets
Optional cables:	
(CCU-M5P ↔ DXC-D30P/D30WSP/327BP)	CCZ-A2 (2m) CCZ-A5 (5m) CCZ-A10 (10m) CCZ-A25 (25m) CCZ-A50 (50m) CCZ-A100 (100m)
(CCU-M5P ↔ DXC-950P/9100P)	CCTZ-3RGB (3m) & CCZ-A Cable CCTZ-3YC (3m) & CCZ-A Cable CCTQ-3RGB (3m) & CCQ-AM Cable

Note: *1 When used with the DXC-950P, these items can not be controlled.
*2 When used with the DXC-9100P, these items can not be controlled.

ACC KIT-201

Accessory Kit

•Accessory kit of the DSR-200AP
•Consisting of three NP-F950, one NPA-10000/B and one AC-V900/B

ACC KIT-PD1

Accessory Kit

•Accessory kit of the DSR-PD1P
•Consisting of one NP-F220/B, one AC-V100/B and one VMC-LM7

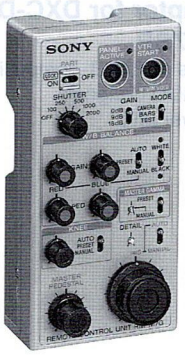
RM-M7G

Remote control unit for DXC-D30P/ D30WSP/327BP/DSR-300P/500WSP

•Compact and lightweight hand-held control unit
•For field production or video operational panel for CCU-M7P/M5P

Power requirements:
DC 9 to 17V, from a camera or a CCU
Power consumption:
0.4W
Mass: 500 g (1 lb 2 oz)
Dimensions: Approx.
86 (W) × 170 (H) × 47 (D) mm
(3 1/2 × 6 3/4 × 1 7/8 inches)

Inputs/outputs:
CAMERA: 10-pin
MONITOR OUT: BNC-type
AUXILIARY IN: 10-pin
Control: Gain select
Output mode select
VTR start/stop
Iris (auto/manual)
Auto iris override
White and black balance (auto/manual/preset)
White balance memory
R/B gain
Gamma (manual/preset)
Master pedestal (manual/preset)
R/B pedestal
Knee point (auto/manual/preset)
Shutter speed select
Detail
Lock (ON/Part/OFF)



RM-VJ1P

Remote Control Unit for the DSR-300P/500WSP

•Includes a 2.5-inch colour hand-held monitor
•High quality microphone
•REC Start/Stop, REC Review, TAKE and NG marking for ClipLink operation
•Zoom control, Focus control*

*Requires lens with remote focus capability.

Supplied Accessory:
CCA-7-7A Camera Cable
Strap for Remote Control Unit
Instruction Manual

General
Signal input: Composite
Power consumption:
3 W (at operation), 1.3 W (LCD off)
Dimensions: 261(H) × 77.4(W) × 32.5(D) mm
(w/o projections)
(10 3/8 × 3 1/8 × 1 5/16 inches)
Mass: 240 g (8 oz)
Operation temperature:
0 °C to 40 °C (32 °F to 104 °F)
Cable length: 7 m (20 ft) (CCA-7-7A only)

Monitor
Display: 2.5-inch TFT LCD, 180K dot

Microphone
Connector: 4-pin (equivalent to ECM-77BC)
Directivity: Omni-directional

RM-81
Remote control unit

•To START/STOP the recording mode of the UVW-100B Betacam SP one-piece camcorder

Connector: Stereo mini
Cable length: 5 m

RCP-TX7
Remote Control Panel

•Remote Control Panel of the CCU-TX7P
•Covers the complete range of control functions •Can be installed into a standard 19-inch rack with RMM-TXR7 Rack Mount Kit

Power requirements:
10 to 17V
(supplied from camera or CCU)
Power consumption:
4.0W
Operating temperature:
–10°C to 45°C (14°F to 113°F)
Storage temperature:
–20°C to 55°C (–4°F to 131°F)
Mass: Approx. 1.5 kg (3 lb 5 oz)

Dimensions: 100 (W) × 330 (H) × 70 (D) mm
(4 × 13 × 2 7/8 inches)
Cable length: 50m max. (with CCA-7 cable)
Supplied accessories:
CCA-7-5 Connecting Cable (5m)
Number plate (1set)
Screws and washers (2)
Operation manual (1)

(Note: This product is not available in some countries.)

CA-325AP
Camera adaptor for DXC-D30P/ D30WSP/327BP

•Multiple outputs of R/G/B, composite sync, VBS, Y/C and AUDIO signals
•Built-in AC power unit

Power requirements:
AC 220/240V, 50/60Hz
Power consumption:
44W
Inputs/outputs:
INTERFACE; 50-pin
VBS OUT; BNC-type
R/G/B OUT; BNC-type (3)
COMPOSITE SYNC OUT; BNC-type
Y/C OUT;
Y/C connector (Mini DIN 4-pin)
AUDIO OUT; Phono jack
GENLOCK IN; BNC-type
REMOTE; 10-pin
Mass: 1.3 kg (2 lb 14 oz)

CA-327P
Camera adaptor for DXC-D30P/ D30WSP/327BP

•For interfacing DXC-D30P/D30WSP/ 327BP with portable VTRs, CCU-M5P and CMA-8ACE
•Equips an S-connector and audio out connector
•The units with serial NO. 40100 and below can be used only with DXC-327BP

Power requirements:
DC 12V
Inputs/outputs:
INTERFACE; DIN 50-pin
VTR/CCU/CMA; Sony Q-type, 14-pin
MIC IN; XLR-type, 3-pin
DC IN; XLR-type, 4-pin
GENLOCK IN; BNC-type
EARPHONE; mini jack
INTERCOM; mini intercom jack
Mass: 1.2 kg (21 lb 10 oz)

CA-537P
Camera adaptor for DXC-D30P/ D30WSP/327BP

•For interfacing DXC-D30P/D30WSP/ 327BP with portable VTRs, CCU-M7P/M5P and CMA-8ACE
•Supplies mic power from MIC IN connector

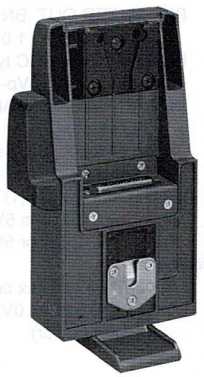
Power requirements:
DC 12V
Power consumption:
1.7W
Inputs/outputs:
INTERFACE; DIN 50-pin
VTR/CCU/CMA; Sony Z-type, 26-pin
MIC IN; XLR-type, 3-pin
DC IN; XLR-type, 4-pin
GENLOCK IN; BNC-type
EARPHONE; mini jack
INTERCOM; mini intercom jack
Mass: 1.3 kg (2 lb 14 oz)

CA-511
Camera adaptor for DXC-D30P/ D30WSP/327BP

•Allows BVV-5PS and DNV-5 to be coupled with a DXC-D30P/D30WSP/327P

Power requirements:
DC 12V
Power consumption:
0.1W
Inputs/outputs:
INTERFACE; DIN 50-pin
Betacam output; D-sub 50-pin
Mass: 0.5 kg (1 lb 2 oz)

Note: The CA-511 does not allow connection with the CA-50P/50AP series camera adaptors.



CA-512P
Camera adaptor for DXC-D30P/ D30WSP/327BP

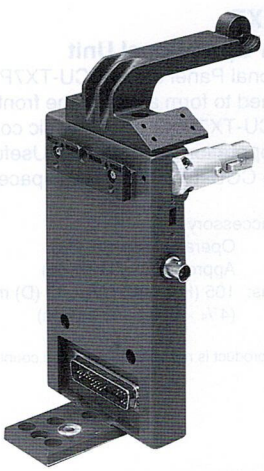
•Allows an AG-7450 Panasonic S-VHS video tape recorder to be coupled with a DXC-D30P/D30WSP/327BP

Power requirements:
DC 12V
Power consumption:
0.35W
Input/outputs:INTERFACE; 50-pin (1)
68-pin (1)
Mass: 0.7 kg (1 lb 9 oz)

CA-513
Camera adaptor for DXC-D30P/ D30WSP/327BP

•Allows a BR-S422E JVC S-VHS video tape recorder to be coupled with a DXC-D30P/D30WSP/327BP

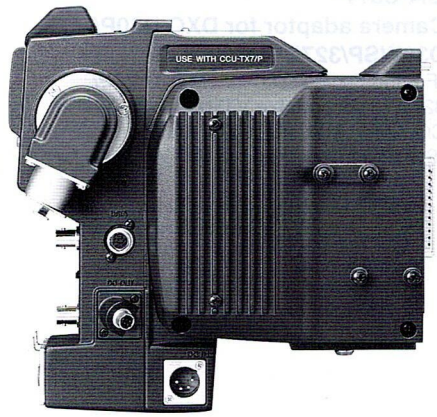
Power requirements:
DC 12V
Power consumption:
0.15W
Input/outputs:INTERFACE: 50-pin (2)
Mass: 0.69 kg (1 lb 8 oz)



CA-TX7P

Camera Adaptor

•Camera Adaptor for the DXC-D30P/ D30WSP to the CCU-TX7 Triax Camera Control Unit. •Rotary (70˚) triax connector for easy cabling •Allows box cursor indication on the viewfinder attached to the DXC-D30P/D30WSP, such as DXF-701CE/701WSCE/51/41. (This function is not available with the DXC-637P)



Supplied accessory:
Operation manual (1)
Input/output connectors:
CCU: Triax (Fischer type) (1)
CAMERA: Pro 76P Digital or Pro 50P switchable
MIC IN (CH-1/2): XLR 3-pin (2), 600ohms, balanced
Input level: Mic in: –60dB
Line in: –20dB
DC IN: XLR 4-pin (1),10.5V to 17V
DC OUT: 4-pin (1), 10.5V to 17V, Max 12W
PROMPTER OUT: BNC type (1), 1.0Vp-p, 75ohms
RETURN OUT: BNC type (1), 1.0Vp-p, 75ohms
INTERCOM/PROGRAMME:
XLR 5-pin (1) (for Headset)
Input level: -60dBs (dynamic)
Output level: -0dBu, max 12dBu
DATA OUT: 10-pin (1)
DC 0 to 5V (analogue) (4)
DC 0 or 5V (digital) (2)
Power requirements
DC 120V (from Triax connector) or
DC 12V (10.5 to 17.0V) (from DC IN connector)

Power consumption

	DC 120V		DC 12V	
	CA-TX7P	Total	CA-TX7P	Total
CA-TX7P only	10.5W	10.5W	7.5W	7.5W
w/DXC-D30P, DXF-701WSCE	11.2W	26W	7.5W	22.3W
w/DXC-D30P, DXF-51	12.3W	35W	7.5W	30.2W

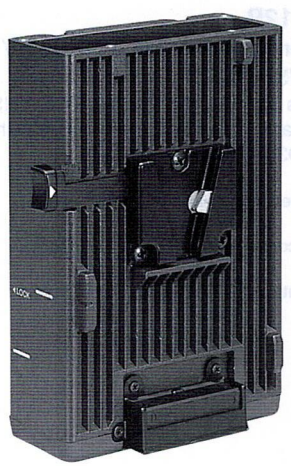
Operating temperature:
-10 °C to 45 °C (14 °F to 113 °F)
Storage temperature:
-20 °C to 55 °C (-4 °F to 131 °F)
Operating humidity:
20% to 90%
Mass: Approx. 2.7 kg (5 lb 15oz)
Dimensions: 226 (H) × 221 (W) × 131 (D) mm
(9 × 8 3/4 × 5 1/4 inches)

(Note: This product is not available in some countries.)

CA-WR855

Camera Adaptor for the WRR-855A

Attaches directly to the DSR-300P/500WSP via a V-shoe attachment and a direct audio/power connection interface.



Input voltage:
DC 10 to 17 V (12 V normal)
Output voltage:
DC 7 V
Load current: 200 mA DC or less (at DC 7V)
Mass: Approx. 300 g (10 oz)
Dimensions :
90 (W) × 132 (H) × 36 (D) mm
(3 5/8 × 5 1/4 × 1 7/16 inches)
(w/o projections)

COU-TX7

Camera Operational Unit

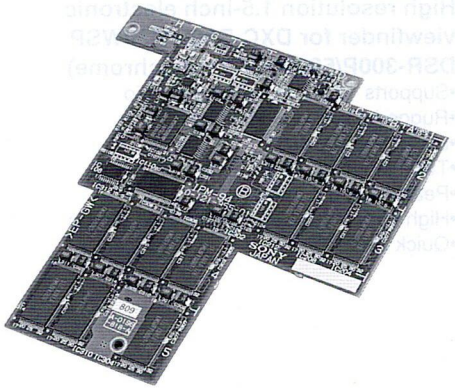
•Operational Panel of the CCU-TX7P •Can be attached to form a part of the front panel of the CCU-TX7P •Supports basic control of camera operation and painting •Useful when using the CCU-TX7P in limited space

Supplied accessory:
Operation manual (1)
Mass: Approx. 330 g (12.6 oz)
Dimensions: 105 (H) × 155 (W) × 43 (D) mm
(4 1/4 × 6 1/8 × 1 3/4 inches)

(Note: This product is not available in some countries.)

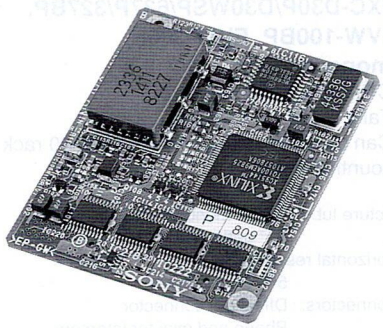
DSBK-301A
Index Picture Board
Allows Index Picture recording (ClipLink) to the DSR-300P/500WSP

Power requirement:
DC 3.4 V (supplied from VTR)
Power consumption:
Less than 300 mW
Mass: 47 g (1.6 oz)
Dimensions: 111 mm × 113 mm
(4 3/8 × 4 1/2 inches)



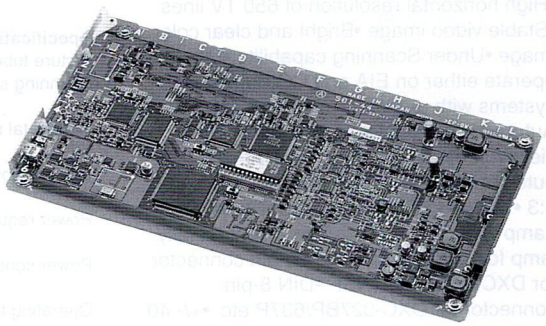
DSBK-501P
Analogue Composite Input Board for the DSR-500WSP

Mass: approx. 22 g (0.7 oz)
Dimensions: 54 mm × 47 mm
(2 1/4 × 1 7/8 inches)



DXBK-701
SDI Output Board for the CCU-TX7P

Power consumption:
4.5 W
Dimensions (w/h/d):
17 × 148 × 227 mm
(11/16 × 5 7/8 × 11 inches)
Mass: 330 g (11.6 oz)



DXF-601CE
High resolution 1.5-inch electronic viewfinder for DXC-327BP, UVW-100BP (monochrome)

- Supplied with DXC-327BPF/327BPK/327BPL UVW-100BPF/100BPK/100BPL
- Rugged, diecast aluminium body
- Large eye cup size
- Peak volume control
- High horizontal resolution of 600TV lines
- Quick start CRT

Picture tube: 1.5-inchmonochrome
Horizontal resolution:
600 lines (centre)
Indicator: REC/TALLY indicator, BATT indicator, SHUTTER indicator, GAIN UP indicator
Power requirements:
DC 12V
Power consumption:
2.1W
Mass: 660 g (1 lb 7 oz)
Dimensions: Approx.
192 (W) × 63 (H) × 219 (D) mm
(7 5/8 × 2 1/2 × 8 5/8 inches)

DXF-701WSCE

High resolution 1.5-inch electronic viewfinder for DXC-D30P/D30WSP DSR-300P/500WSP (monochrome)

- Supports 16:9 and 4:3 aspect ratio
- Rugged, diecast aluminium body
- Large eye cup size
- Two Red REC Tally Lamps
- Peak volume control
- High horizontal resolution of 600TV lines
- Quick start CRT

Picture tube: 1.5-inchmonochrome
Horizontal resolution:
600 lines (centre)
Indicator:
REC (2), TAKE, BATT, SHUTTER, GAIN UP
Power requirements:
DC 12V
Power consumption:
2.1W
Mass: 660 g (1 lb 7 oz)
Dimensions: Approx.
236 (W) × 85 (H) × 219 (D) mm
($9^3/_8 \times 3^1/_4 \times 8^5/_8$ inches)

DXF-41

4-inch electronic viewfinder for DXC-D30P/D30WSP/637P/327BP, UVW-100BP, EVW-300P (monochrome)

- CCIR/EIA switchable
- Tally, intercom facilities
- Can be mounted into the RMM-1800 rack mounting metal

Picture tube: 4-inch monochrome,
50° deflection
Horizontal resolution:
500 lines (centre)
Connectors: DIN 8-pin connector
Phone and mini for intercom
Power requirements:
Supplied from a camera

Power consumption:
10W
Operating temperature:
0 to 40°C (32 to 104°F)
Dimensions: Approx.
105 (W) × 107 (H) × 252 (D) mm
($4^1/_4 \times 4^1/_4 \times 10$ inches)
including projecting parts and controls
Mass: Approx. 1.62 kg (3 lb 9 oz)
with stand and hood

Supplied accessories:
Stand (1), Screws (4), Hood (1)
Connecting cord (mini-mini) (1)

DXF-51

5-inch Monochrome Viewfinder

- High horizontal resolution of 650 TV lines
- Stable video image
- Bright and clear color image
- Under Scanning capability
- Can operate either on EIA and CCIR signals systems with automatic selection
- 16:9/4:3 Automatic Aspect Ratio Selection
- The viewfinder aspect ratio of the DXF-51 is automatically switched between 16:9 and 4:3
- Two red REC tally lamps
- Green Tally Lamp which can be used as a second tally lamp for CCU operations
- 20-pin connector for DXC-D30P/D30WSP
- DIN 8-pin connector for DXC-327BP/637P etc.
- +/- 40 degrees of tilting is possible
- +/- 90 degrees of panning is possible
- Rugged and compact body

Supplied accessories:
Hood, 20-pin Cable,
DIN 8-pin Cable,
Operation Manual

Specifications

Picture tube: 5-inch monochrome, 70° deflection
Scanning system:
2:1 interlace, 625/50 or 525/59.94 switchable
Horizontal resolution:
650TV lines (center)
Camera connector:
20-pin or DIN 8-pin connector
Power requirements:
DC 12V +5.0/-1.5V (supplied from a camera)
Power consumption:
11W
Operating temperature:
0°C to 40°C (32°F to 104°F)
Mass: Approx.2.4 kg (5 lb 5 oz) with stand and hood
Dimensions: Approx. 202 (H) × 199 (W) × 217 (D) mm
($8 \times 7^7/_8 \times 8^5/_8$ inches)
including projecting parts and controls
Approx. 202 (H) × 199 (W) × 289 (D) mm
($8 \times 7^7/_8 \times 11^1/_2$ inches)
with stand and hood

DR-100

Intercommunication headset

- Used in the DXC-D30P/D30WSP/637P/327BP, UVW-100BP, CCU-M5P/M7P, SEG-2550AP/2000AP
- With mini type 4-pole plug

Mass: 105 g (3.7 oz)

LC-421
Carrying case for DXC-D30P/ D30WSP, DXC-327BP, UVW-100BP

•Can hold the DXC-D30P/D30WSP/ 637P/327BP in camcorder configuration with DSR-1P/PVV-1AP/PVV-3P/EVV-9000P
•Supplied with the PVW-637PK/637PL, PVW-D30F, DSR-130PF, UVW-100BPF

Dimensions: Approx.
790 (W) × 440 (H) × 340 (D) mm
(31 1/8 × 17 3/8 × 13 1/2 inches)
Mass: 7.7 kg (17 lb)

LC-DS300SFT
Soft Carrying Case for the DSR-300P/500WSP

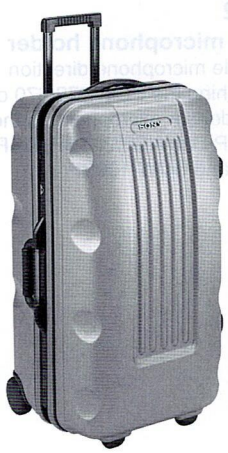
•Direct pack with accessories attached: Battery pack, Microphone, Viewfinder and Zoom lens.
•Easy to pack a variety of accessories such as Battery charger and other items.

Mass: approx. 3.5 kg (7 lb 11 oz)
Dimensions (w/h/d):
220 × 300 × 620 mm
(without projection)
(8 3/4 × 11 7/8 × 24 1/2 inches)

LC-DS500
Hard carrying case for the DSR-300P/500WSP

•Direct pack with accessories attached: Battery pack, Microphone, Wireless receiver Viewfinder and Zoom lens.
•Easy to pack a variety of accessories such as RM-VJ1P, Battery charger and other items

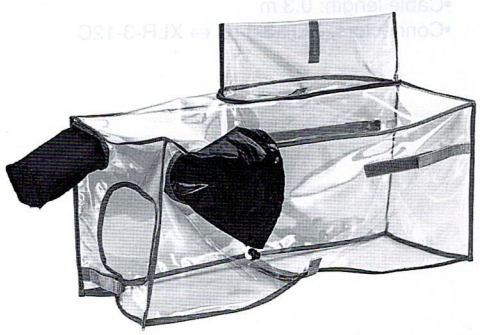
Mass: approx. 8 kg (17 lb 10 oz)
Dimensions (w/h/d):
424 × 777 × 396 mm
(16 3/4 × 30 5/8 × 15 5/8 inches)



LCR-1
Camera rain cover for DXC-D30P/ D30WSP/327BP, UVW-100BP camcorders

•Can be used for the DXC-D30P/D30WSP/ 327BP, in camcorder configuration with DSR-1P/BVV-5PS/PVV-3P
•Transparent material used to operate camera and VTR switches with the LCR-1 on

Mass: 260g (9 oz)



LCH-VX9000
Hard Carrying Case
•Hard Carrying Case for DSR-200AP
•Possible to house accessories for DSR-200AP

Specifications:
Dimensions: 560(W) × 395(H) × 310(D) mm (22 1/8 × 15 5/8 × 12 1/4 inches)
Mass: Approx. 6.5kg (14 lb 5.2 oz)

LCH-TRV900
Hard Carrying Case
•Hard Carrying Case for DSR-PD100AP
•Possible to house accessories for the DSR-PD100AP.

Specifications:
Dimensions: 352(W) × 236(H) × 162(D) mm (13 7/8 × 9 3/8 × 6 3/8 inches)
Mass: Approx. 2.5kg (5 lb 8.1 oz)

CAC-12
Camera microphone holder
•Adjustable microphone direction
•For attaching the ECM-672/670 or the C-74 condensor microphone to the DXC-D30P/D30WSP/327BP, DSR-300P/500WSP and UVW-100BP

EC-0.3C2
Microphone cable
•Cable length: 0.3 m
•Connectors: XLR-3-11C ↔ XLR-3-12C

EC-0.5C2
Microphone cable
•Cable length: 0.5 m
•Connectors: XLR-3-11C ↔ XLR-3-12C

ECM-670
Electret Condenser Microphone
•Super-cardioid microphone with minimum sensitivity to ambient noise •Compact and light weight design •Suitable for mounting on Sony Betacam, DVCAM and DXC series cameras •External power supply (DC 12V to 48V)

ECM-672
Electret Condenser Microphone
•Super-cardioid characteristics, rejecting indirect sound •2-way powering — internal battery (Approx. 3,000 hours of continuous operation) or external power supply (DC 48V) •2-position low-cut filter •Suitable for mounting on Sony Betacam, DVCAM and DXC series cameras

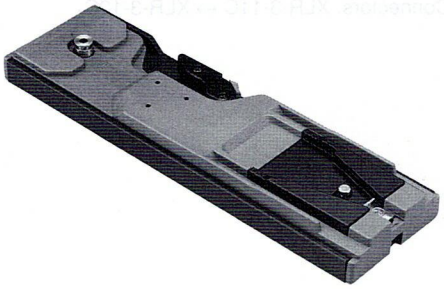
CAC-4
Chest pad for DXC-D30P/D30WSP/ 327BP, UVW-100BP
•Provides more stable camera operation
•Attachable to the VCT-12/U14 tripod adaptors directly

Mass: Approx. 185 g (7 oz)

VCT-U14
Tripod adaptor for DXC-D30P/ D30WSP/637P/327BP, UVW-100BP, DSR-300P/500WSP

•Adjustable camera position with screws

Dimensions: 282 (W) × 27 (H) × 80 (D) mm (11 1/8 × 1 1/8 × 3 1/4 inches)
Mass: Approx. 900 g (2 lb)



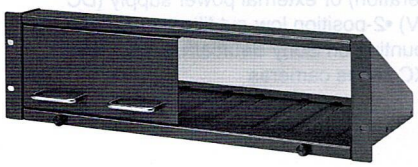
WRR-855A
UHF Synthesized Tuner

•Slot-in type portable tuner designed for use with Sony camcorders •Water proof structure •Compact design and lightweight only 280g (11 oz)

RMM-1800
Rack-mounting metal

•This mounting adaptor is used for installing the DXF-41 and CMA-8ACE into a 19-inch EIA standard rack which provides a clean and organized arrangement for studio system

Dimensions: 482 (W) × 136.2 (H) × 223 (D) mm (19 × 5 3/8 × 8 7/8 inches)
Mass: 3.1 kg (6 lb 13 oz)
Supplied accessories:
Blank panel (2)



RMM-TXC7
Rack Mount Kit

•Allows two CCU-TX7P units or one unit with a waveform monitor to be be mounted into a standard 19-inch rack

Mass: Approx. 3.7 kg (8 lb 3 oz)
Dimensions: 482 (W) × 177 (H) × 380 (D) mm (19 1/8 × 7 × 15 inches)
Supplied accessories:
Installation manual (1)
Blank panel (1)

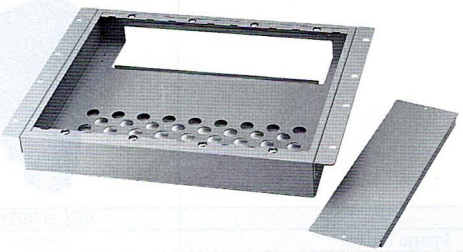
(Note: This product is not available in some countries.)

RMM-TXR7
Rack Mount Kit

•Up to four RCP-TX7P units can be installed into a standard 19-inch rack •Comes with two blank panels

Mass: Approx. 2.7 kg (5 lb 12 oz)
Dimensions: 482 (W) × 75 (H) × 354 (D) mm (19 × 3 × 14 inches)
Supplied accessories
Installation manual (1)
Blank panel (2)

(Note: This product is not available in some countries.)



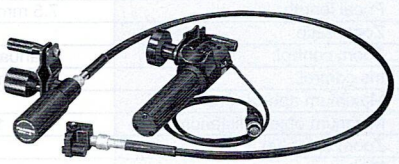
LO-32BMT
2/3-inch lens mount adaptor for DXC-327BP/9100P/950P/930P and UVW-100BP

•For mounting a 2/3-inch bayonet-mount type lens on the DXC-327BP/9100P/950P/930P and UVW-100BP

LO-23
Flexible cable unit

•Servo zooming and manual focusing for Fujinon Lens, such as VCL-916 BYA and VCL-714BXA

Cable length: 1 m (3.3 ft)
Mass: 1.2 kg (2 lb 10 oz)

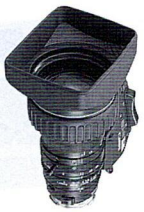


LO-26
Flexible cable unit

•Servo zooming and manual focusing for Canon Lenses, such as VCL-918BY

Cable length: 1 m (3.3 ft)
Mass: 1.1 kg (2 lb 7 oz)

LENSES FOR DXC-D30P/D30WSP, PVW-D30P and DSR-130P/500WSP camcorder (2/3-inch Bayonet mount type, 12-pin connector)



	VCL-918BY
Image format	2/3-inch
Mount	Sony bayonet
Focal length	9 to 162 mm
Zoom ratio	18×
Zoom control	Manual & motorized
Iris control	Auto & manual
Maximum aperture ratio	1.8
Minimum object distance	0.9 m
Zoom extender	—
Macro	Yes
Filter size	82 mmø
Mass	1.3 kg (2.7 lb)
Dimensions	171.5 mm(L) (6 7/8 inches)
Note	By Canon

LENSES FOR DSR-300P (1/2-inch Bayonet mount type, Hot-shoe connector)

	VCL-714BXA
Image format	1/2-inch
Mount	Sony 1/2-inch bayonet
Focal length:	7.5 mm to 105 mm
Zoom ratio:	14×
Zoom control:	Manual/Motorized
Iris control:	Manual/Auto
Maximum aperture ratio:	1.4
Minimum object distance:	1.1 m
Zoom extender	NO
Macro	Yes
Filter size:	72 mm
Mass:	1.1 kg (2 lb 6 oz)
Dimensions:	157.5 mm(L) (6 1/4 inches)
Lens connectors	Hot-shoe type
Notes	by Fujinon

DXC-H10

2/3 inch 3-CCD Colour Video Camera (not available in Europe)

•Three 2/3 inch IT (Interline Transfer) Hyper HAD® CCDs •New HDVS (High Definition Video System) camera with 2,000,000 effective picture elements and 1000TV lines of resolution •High sensitivity of F8.0 at 2,000 lux •Compact and light weight: 1200 g •CCD IRIS® , AGC (Automatic Gain Control) , and Auto Iris function control wide range of incoming light levels •Four pattern Light Metering System with selectable detection method (Multi, Average, Spot, and Peak Mode) •Three white balance modes (AWB, ATW, Manual) •Ten step electronic shutter speed selection •On-screen programmable menu functions •Full function control from the rear panel or the optional RM-C950 Remote Control Unit •Precise picture controls including Linear Matrix, Vertical Shading Compensation, Advanced Detail, Knee, Master Pedestal, and Negative/Positive mode •Flash synchronization function •Various electronic shutter functions including Clear Scan™, Long Term Exposure, RR (Restart Reset), and LTR (Long Term Reset)

Supplied Accessories:	Lens mount cap (1) Name sheet for the buttons on the RM-C950 (1) Operating Instructions (1)
Optional Accessories:	Camera Adaptor CMA-H10 Remote Control Unit RM-C950 Digital Scan Converter DSC-1024G Camera Cable CCZ-A2/A5/A10/A25/A50/A100 Microscope adaptors and couplers MVA-690, MVAC-33-0/N/SM Monitor cable CCXC-9DBS, D-SUB 9-pin ↔ 5 BNC

Specifications

Image system/optical system

Image device:	Three 2/3-inch Interline Transfer Hyper HAD CCDs
Picture elements:	1920 (horizontal) × 1035 (vertical)
Shooting system:	CCD 3-chip
Lens:	Prism type, F1.4
Lens mount:	2/3 inch bayonet type

Video system

Synchronization:	Internal/external synchronization, automatic switching
Signal format:	HD format (conforms to BTA standard)
Output frequency (horizontal/vertical):	33.75 kHz/60 Hz or 33.71 kHz/59.94 Hz (60 Hz or 59.94 Hz switchable)

Functions/performance

Horizontal resolution:	1000TV lines
Min. illumination:	16 lx (F1.4, G or Y: 100%, gain: + 12 dB)
Sensitivity:	2000 lux (F8, 3,200K) system
Signal-to-noise ratio:	50 dB (Y, Gain: 0 dB, Gamma: OFF, 100 kHz to 30 MHz)
Gain control:	Fixed: 0/6/12 dB selectable AGC: Automatically adjusted within range of 0 dB to 12 dB
White balance:	AWB: automatic adjustment (2,500 K to 9,000 K) (R. PAINT and B. PAINT adjustable) ATW: Automatic tracing (R. PAINT and B. PAINT adjustable) MANU: Manual adjustment (R. GAIN and B. GAIN adjustable)
Colour temperature:	3200 K/5600 K switchable
Electronic Shutter:	CCD IRIS: Automatic exposure control (within range of 1/60-1/10,000 seconds) STEP: 1/100 (flickerless mode), 1/250, 1/500, 1/1000, 1/2000, 1/4000, 1/10000, 1/20000, 1/40000, 1/100000 s MANU: 2 to 256 frames (low speed mode frame), 1 to 560H (high speed mode)
External Trigger Shutter:	RR (Restart Reset) EXT. TRIG LTR (Long-term reset)
AE mode:	MULTI, AVERAGE, SPOT, PEAK
Knee:	HI, LOW, AUTO
Master Pedestal:	Adjusts pedestal levels of G, B, and R channels simultaneously
Linear Matrix:	ON/OFF switchable
Vertical Shading compensation:	OFF/MANUAL switchable
Gamma compensation:	ON/OFF switchable
Negative/Positive mode:	ON/OFF switchable
Accumulation mode:	Field/frame switchable
Detail compensation:	ON/OFF switchable
Flash synchronization:	ON/OFF switchable
Video signal output mode:	GBR/$Y P_B/P_R$ switchable
Sync signal format:	Tri-level sync signal/Bi-level switchable
Sync signal input/output mode:	Input/output switchable (HD/VD and SYNC signals switched simultaneously)
Horizontal phase:	Adjustable

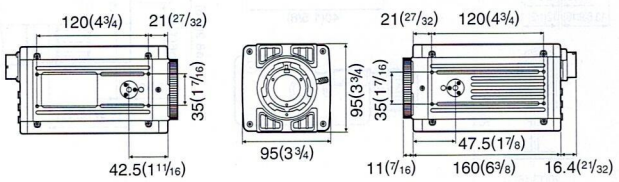
Inputs/outputs

Video input/output signals:	Y/R/G/B output: 1 Vp-p (75 Ω) P_B/P_R output: 0.7 Vp-p (75 Ω) HD/VD input/output: 1 Vp-p (75 Ω) SYNC input/output: 0.6 Vp-p (tri-level, 75 Ω), 0.3 Vp-p (bi-level) WEN pulse: TTL level, negative
External sync input:	SYNC or HD/VD switched automatically
External trigger input:	TTL level, negative Pulse width: more than 3H
Input/output connectors:	MONITOR: D-sub 9-pin CAMERA ADAPTOR: 26-pin LENS IRIS: 12-pin LENS CTRL: 12-pin FLASH: small coaxial type

General

Power supply:	15 V DC (10.5 to 15 V)
Power consumption:	Approx. 25 W
Operating temp:	-5 to 45°C (23 to 113°F)
Storage temp:	-20 to 60°C (-4 to 140°F)
Operating humidity:	20% to 80% (free of condensation)
Storage humidity:	20% to 95% (free of condensation)
Mass:	1.2 kg (2 lb 10 oz)

Dimensions

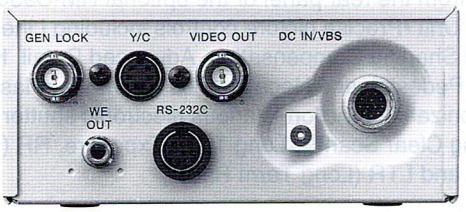


Unit: mm (inch)

DXC-LS1P

CCD Colour Video Camera

•Extremely small and compact camera composed of a camera head and a camera control unit •1/4-inch Hyper HAD CCD adoption •High picture quality with 460TV lines, a high sensitivity of F5.6 at 2000 lx and an excellent signal-to-noise ratio •Advanced colour matrix function allows you to adjust R, G and B colours independently for accurate colour reproduction •Easy call-up function of favorite settings (2 patterns) •Exchangeable camera head •AE control function (CCD IRIS function combined AGC) provides automatic control over incoming light •Automatic backlight adjustment •Built-in electronic zoom function (x1.00 to x3.00) •Four-pattern Light Metering System with selectable detection method •Alternative White Balance Control modes - AWB, ATW, 5600 K or 3200 K (Trimming with R/B paint function is possible with AWB, 5600 K and 3200 K) •Shutter speed control capability for long term exposure •With variable gamma function, the contrast of the picture can be changed for a clear view •Enhancer function provides crisper, sharper images •Three different sizes of colour bars •Flicker canceller is provided, freeing the electronic shutter •Positive films can be shot as negative, or vice versa •B&W mode for sharp images free from colour noise •Built-in RS-232C interface •Genlock capability with VBS •Y/C or VBS output •Optional CMA-D2CE or AC-E90HG can be used for power supply

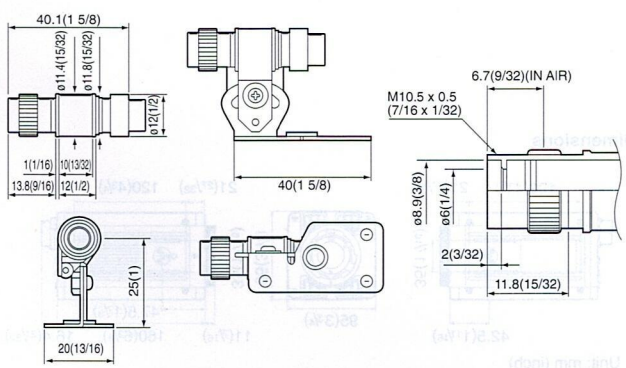


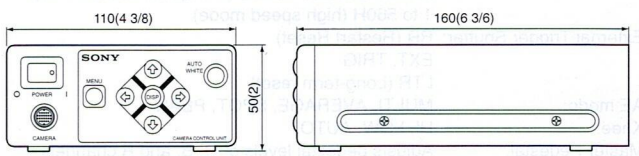
Supplied Accessories: Tripod adaptor (1)
Lens mount cap (1)
Operation manual (1)

Specifications

Image device:	1/4-inch Interline Transfer Hyper HAD CCD
Picture elements:	752(H) × 582(V)
Sensing area:	3.2 × 2.4 mm (1/4-inch)
Scanning system:	625 lines, 2 : 1 interlace
Sync system:	Internal or external with VBS
Phase control:	H (0 to +255) / SC (0/180, 0 to +255)
Horizontal resolution:	460TV lines
Lens mount:	Ultra mount
Sensitivity:	2000 lx with F5.6
Minimum illumination:	10 lx (F1.2)
Gain control:	AGC / 0 to -12dB (1dB steps) switchable
Electronic shutter:	OFF/MANUAL/AUTO MANUAL: 1/50, 1/100, 1/125, 1/250, 1/1000, 1/2000, 1/4000, 1/8000, 1/10000, 1/20000, 1/40000 (seconds) 2 to 512 fields, ODD/EVEN switchable
Signal-to-noise ratio:	44 dB
White balance:	ATW/AWB/5600K/3200K selectable (R/B paint: –128 to 0 to +128)
AE mode:	ON/OFF switchable
AE level:	–60 to 0 to +60
Light metering system:	Backlight compensation/Full/Centre (Large)/Centre (Small)/Slit (Large)/Slit (Small)
Detection method:	Peak/average switchable
Master pedestal:	–10 to 0 to +40
H Enhancer:	–16 to 0 to +15
Zoom:	ON (×1.00 to ×3.00)/OFF switchable
Colour matrix:	ON/OFF switchalbe R : –60 to 0 to +60 G : –60 to 0 to +60 B : –60 to 0 to +60
Gamma:	–16 to 0 to +15
Colour mode:	ON/OFF switchable
Colour bars:	FULL/HI/LOW/OFF switchable
Negative/Positive reverse:	ON/OFF switchable
Menu memory:	2 pages
Flicker canceller:	AUTO/OFF switchable
Baud rate:	19200, 9600, 4800
Video out:	VBS: 1.0 Vp-p, 75 Ω, sync negative Y/C: Y : 1.0 Vp-p, 75 Ω, sync negative C : 0.3 Vp-p, at burst level, 75 Ω
Operating temperature:	0°C to 40°C (32°F to 104°F)
Storage temperature:	–20°C to 60°C (-4°F to 140°F)
Power requirements:	DC 12 V (Supplied from CMA-D2CE) DC 9 V (Supplied from AC-E90HG)
Power consumption:	5 W
Maximum cable length:	10 m using 10m optional cable (CCMC-16P10)
Mass:	Camera head (without lens and supplied cable) : 8 g (0.3 oz) Camera control unit : Approx. 665 g (1 lb 7 oz)
Connectors:	Camera head : CAMERA (16-pin) Camera control unit : CAMERA (20-pin), VIDEO OUT (BNC), DC IN/VBS (12-pin, DC jack), Y/C (DIN 4-pin), GENLOCK (BNC), RS-232C (8-pin), WE OUT (PIN)

Dimensions



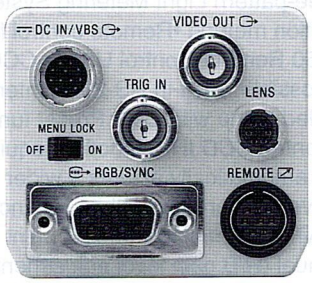


Unit: mm (inch)

DXC-390P

3-CCD Color Video Camera

•1/3 type IT 3-CCD •C mount •Exwave HAD technology provides excellent sensitivity and low smear levels •Superior picture quality: High resolution of 800 TVL and S/N ratio of 61 dB •High Sensitivity of F8 at 2000lx •Scene Files and User Files •Powerful picture contrast controls: DynaLatitude, Dynamic Contrast Control Plus (DCC+) and Black Stretch •Several enhance controls: Detail, Linear Matrix and Potential Enhance •Wide selection of Automatic Exposure (AE) modes •Hyper Gain •RGB, Y/C and composite video outputs •Full control of functions from the side panel or the optional RM-C950 Remote Control Unit

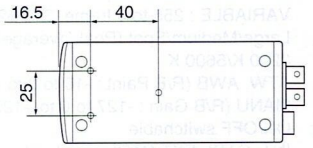


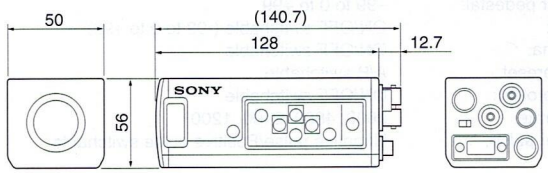
Supplied accessories: Lens cap (1)
Tripod adapter (1)
Operation manual (1)
Panel sheet for RM-C950

Optional accessories: Lens VCL-610WEA/614WEA
VCL-08WM/16WM/25WM
Remote control unit RM-C950
Camera adapter CMA-D2/CE, CMA-D3/CE
Digital still recorder DKR-700/P
Microscope adapter MVA-15
Microscope coupler MVAC-33-N/33-O/33-SM
Camera cable CCDC-5/10/25/50A/100A
CCMC-12P02/05/10/25
CCXC-9DBS
CCMC-9DS/9DSMN
CCMC-3MZ
CCZ-A2/A5/A10/A25/A50/A100

Specifications

Pick-up device:	1/3 type IT (Interline Transfer) CCD
Effective picture elements:	752 (H) × 582 (V)
Sensing area:	6.00 (H) × 4.96 (V) mm
Scanning system:	2:1 interlaced, 625 lines
Horizontal frequency:	15.625 kHz
Vertical frequency:	50 Hz
Sync system:	Internal or External with VBS, HD/VD(Automatic Switching)
Phase control:	H/SC phase control
Horizontal resolution:	800TV lines
Lens mount:	C mount
Flange back:	17.526 mm in air
Sensitivity:	F8.0 at 2000 lux
Minimum illumination	4 lux (F2, GAIN:HYPER)
S/N ratio:	61 dB
Gain:	STEP/AGC/HYPER selectable STEP: 0~24 dB by 1 dB step AGC:0~24 dB (Limit value: 6 dB, 12 dB, 18 dB, 24 dB variable) HYPER: 30 dB
Electronic shutter:	OFF/STEP/VARIABLE/CCD IRIS selectable OFF 1/50s
STEP:	OFF (PAL:1/50 s), F.L.(PAL:1/120 s), 1/125, 1/250, 1/500, 1/1000, 1/2000, 1/4000, 1/10000, 1/20000, 1/40000, 1/100000, 0.1, 0.2, 0.3, 0.5, 1.0, 1.5, 2.0, 2.5, 3.0, 3.5, 4.0, 5.0, 6.0, 7.0, 8.0s
	VARIABLE: in high-speed mode 310/625 to 1/625H, OFF in low-speed mode 255 to 1 frames for field mode 256 to 2 frames for frame mode
	CCD IRIS: 1/60~1/100,000 s (Limit value: 1/500, 1/1000, 1/2000, 1/4000, 1/10000, 1/20,000, 1/40,000, 1/100,000 s variable)
Lens:	Remote (Auto or Manual)/Video selectable
AE area:	Multi/Large/Medium/Spot/Slit/Manual selectable
AE level:	Variable
AE speed:	Fast/Mid/Slow selectable
AE detect:	Average/Peak selectable
Contrast Effect:	Manual/DynaLatitude/DCC+ selectable
Knee Point:	High/Normal/Low selectable(Contrast Effect: Manual)
Black stretch:	Variable (Contrast Effect: Manual)
Gamma:	ON/OFF Variable
Pedestal:	Master and R/B Manual adjustable
Black balance:	ABB
White balance:	AWB/ATW NORMAL/ATW WIDE/MANUAL/3200K/5600K selectable AWB or ATW R/B Paint, MANUAL R/B Gain
ATW area:	NORMAL/MANU selectable
ATW speed:	FAST/NORMAL/SLOW selectable
Detail level:	ON/OFF (Variable at ON)
Detail Frequency:	HIGH/MID/LOW selectable
Linear matrix:	ON/OFF
Linear matrix MODE:	STANDARD/R Enhance/G Enhance/B Enhance/Manual selectable
Partial Enhance:	ALL/IN/OUT selectable
CCD integration mode:	FIELD/FRAME selectable
Shading Compensation:	OFF/ON (Manual control)
Trigger Polarity:	Positive edge trigger /Negative edge trigger selectable
Baud rate:	19200/9600/4800/2400/1200 selectable
Sync:	RGB/G/OFF selectable
Strobe:	ON/OFF
User File:	A/B switchable (Two pattern memories)
Scene File:	STANDARD/MICROSCOPE/FULL AUTO/STROBE/FILE A or B
Output signal:	VBS: 1.0 Vp-p, 75 Ω, sync negative RGB: 0.7 Vp-p, 75 Ω, Sync ON/OFF possible SYNC: 2 Vp-p, 75 Ω Y: 1.0 Vp-p, 75 Ω C: 0.3 Vp-p, 75 Ω, without sync
Operating temperature:	-5°C to 45°C
Storage temperature:	-20°C to 60°C
Power requirements:	DC 10.5V to 15.0V
Power consumption:	Approx. 7.6W
Dimensions:	56 (W) × 50 (H) × 128 (D) mm (Excluding projecting parts)
Weight:	Approx. 370g
Connectors:	Lens (6 pin) RGB/SYNC (9 pin D-sub) DC IN/VBS (12 pin) VIDEO OUT (BNC) TRIGGER IN (BNC) REMOTE (8 pin mini DIN)

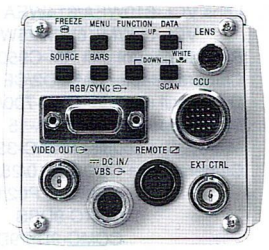




DXC-9100P

3-CCD Colour Video Camera

•Progressive scan 3-CCD camera featuring full-frame dynamic image capturing •Square picture pixels adoption (8.3 µm x 8.3 µm) for more accurate measurements •Three alternative signal output capability - Normal mode and Frame shutter mode (2:1 interlace) and Non-interlaced mode • High picture quality with 800TV lines, a high sensitivity of F5.6 at 2000lx and an excellent S/N raito of 57 dB •By utilizing the built-in frame memory, freeze function (continuous freeze mode or source/freeze mode is selectable) and long term exposure function can be controlled without external equipment •Three-pattern Light Metering System with selectable detection method •Remote control from the optional RM-C950 Remote Control Unit or CCU-M5P Camera Control Unit is possible •Built-in RS-232C interface •On-screen four divided menu with User Preset function for easy set-up •Digital control CCD IRIS function (equivalent to four F-stops) and AGC automatically adjusts a wider range of incoming light levels •Alternative White Balance Control modes - AWB, ATW (Trimming with R/B paint function is possible) or manual (R/B gain level adjustment) •Variable speed electronic shutter such as External Trigger Shutter, Clear Scan function in addition to the conventional eight-step selection •RGB output via a 9-pin D-sub connector •Y/C or VBS output can be selected from the 9-pin D-sub connector •Composite signal output via a BNC connector •Genlock capability with VBS or BS signals •Accepts bayonet-mount lenses with a hot-shoe connection •Optional CMA-D2CE can be used for power supply



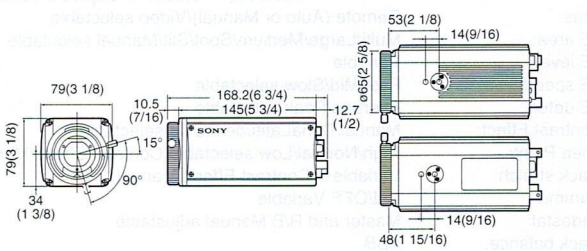
Supplied Accessories: Lens mount cap (1)
Operation manual (1)
Buttons label for the optional RM-C950 Remote Control Unit

Specifications

Image device:	1/2-inch Interline Transfer Hyper HAD CCD (x3)
Picture elements:	782(H) × 582(V)
Sensing area:	6.4 × 4.8 mm
Scanning system:	PAL standard format : 625 lines, 2:1 interlace Non-interlaced format : 1/50, Non-interlaced
Horizontal frequency:	PAL standard format : 15.625 kHz Non-interlaced format : 31.25 kHz
Vertical frequency:	PAL standard format : 50 Hz Non-interlaced format : 50 Hz
Sync system:	Internal or external with VBS, BS, VS, SYNC or HD/VD
Phase control:	H (-99 to 0 to +99) / SC (0/180, -99 to 0 to +99)
Green-on-sync:	ON/OFF switchable
Horizontal resolution:	800 TV lines
Vertical resolution:	575 TV lines
Lens mount:	38 mm bayonet mount
Sensitivity:	2000 lx with F5.6 (3200 K)
Minimum illumination:	15 lx (F1.4, +18 dB)
Signal-to-noise ratio:	57 dB
Gain control:	AGC / 0 to 18 dB (1 dB steps) switchable
Electronic shutter:	OFF/STEP/VARIABLE/CCD IRIS selectable STEP : 1/50, 1/120, 1/125, 1/250, 1/500, 1/1000, 1/2000, 1/4000, 1/10000 (seconds) 0.1, 0.2, 0.3, 0.5, 1.0, 1.5, 2.0, 2.5, 3.0, 3.5, 4.0, 5.0, 6.0, 7.0, 8.0 (seconds) VARIABLE : 255 to 1 frame, 312/625 to 1/625H
AE Window:	Large/Medium/Spot (Peak/average switchable)
Colour temperature:	3200 K/5600 K
White balance:	ATW, AWB (R/B Paint : -10 to 0 to +10) MANU (R/B Gain : -127 to 0 to +127)
External trigger shutter:	ON/OFF switchable
Freeze control:	INT. CTRL/EXT.CTRL switchable
Master pedestal:	–99 to 0 to +99
Detail:	ON/OFF switchable (-99 to 0 to +99)
Gamma:	ON/OFF switchable
User preset:	A/B switchable
User protect:	ON/OFF switchable
Baud rate:	9600, 4800, 2400, 1200
Trigger pulse:	Negative pulse/Positive pulse switchable

Video out:	VBS: 1.0 Vp-p, 75 Ω, sync negative RGB : 0.7 Vp-p, 75 Ω Y/C : Y : 1.0 Vp-p, 75 Ω, sync negative C : 0.3 Vp-p, at burst level, 75 Ω VGA : RGB : 0.7 Vp-p SYNC/HD/VD : 2.0 Vp-p, 75 Ω WEN : 5.0 Vp-p, high impedance
External sync input:	VBS/BS/VS/SYNC/HD/VD (VBS : 1.0 Vp-p or burst 0.3 Vp-p, SYNC : 0.3 Vp-p, HD/VD : 2.0 to 4.0 Vp-p), 75 Ω
External trigger input:	Trigger pulse, low level : 0 to 0.5 V, high level : 4.5 to 5.0 V, high impedance
Operating temperature:	–5°C to 45°C (23°F to 113°F)
Storage temperature:	–20°C to 60°C (-4°F to 140°F)
Power requirements:	DV 12 V (Supplied from CMA-D2CE or CCU-M5P)
Power consumption:	Approx. 12 W
Mass:	Approx. 790 g (1 lb 11 oz)
Connectors:	LENS (6-pin), RGB/SYNC (D-sub 9-pin), DC IN/VBS (12-pin), VIDEO OUT (BNC), CCU (20-pin), REMOTE (8-pin), EXT CTRL (BNC), HOT SHOE (14-pin)

Dimensions



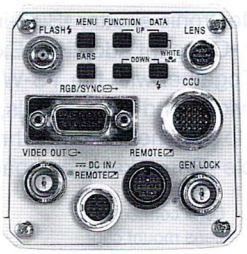
Unit: mm (inch)

DXC-950P

3-chip CCD colour video camera

•Multi-purpose 3-CCD compact camera for versatile industrial video applications •Newly developed 1/2-inch IT Power HAD sensor CCDs •High horizontal resolution of 750TV lines •Extremely high sensitivity of F8.5 at 2000 lx •Excellent signal-to-noise ratio of 58 dB •Excellent colour reproduction •Convenient operational functions including Flash Synchronization and Three-pattern Light Metering System •Various precise picture controls •Field or frame integration mode selectable •Remote control from the optional RM-C950 Remote Control Unit or CCU-M5P Camera Control Unit •Built-in RS-232C serial interface •On-screen four divided menu with Memory Bank function for easy set-up •Digital control CCD IRIS function (equivalent to six F-stops) and AGC automatically adjusts a wide range of incoming light level •Alternative White Balance Control Modes - AWB, ATW (Trimming with R/B Paint function is possible) or manual (R/B gain level adjustment) •Minutely controlled electronic shutter speed - Manual speed selection (1H for Clear Scan or 1 frame step for long term exposure) in addition to the conventional 8-step speed selection

Lens is optional

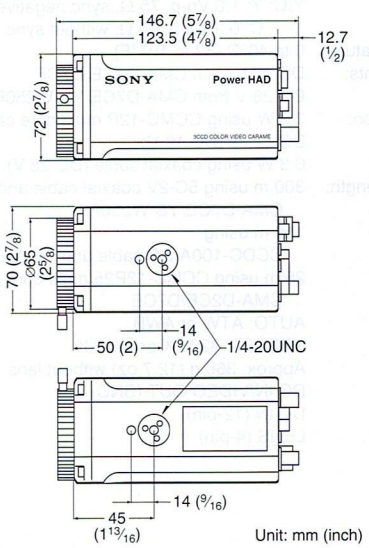


Supplied accessories:	Lens mount cap Operation manual
Optional accessories:	Camera adaptor CMA-D2CE Remote control unit RM-C950 Camera control unit CCU-M5P Digital Still Recorder DKR-700P DC cable CCDC-5/10/25/50A/100A 12-pin multi-core cable CCMC-12P02/05/10/25 Component/RGB cable CCXC-9DD Component/RGB cable CCMC-9DS/9DBS Component/RGB cable CCMC-9DSMN Camera cable CCTQ-3RGB Camera cable CCTZ-3RGB Camera cable CCTZ-3YC Microscope adaptor with auto iris MVA-40 Microscope adaptor MVA-41A Microscope adaptor (one way) MVA-265 Coupler for NIKON microscopes except the SMZ-10 series MVAC-33-N Coupler for NIKON SMZ-10 series microscopes MVAC-33-SM Coupler for OLYMPUS microscopes MVAC-33-O Coupler for ZEISS microscopes except AXIOVERT 100/135 series and SV series ZBB Coupler for ZEISS AXIOVERT 100/135 series and SV series microscopes ZSV 2/3-inch Lens Mount Adaptor LO-32BMT Manual zoom lens VCL-707BXM Remote zoom lens VCL-712BXEA Remote zoom lens VCL-714BXEA Remote zoom lens VCL-717BXEA

Specifications

Image device:	1/2-inch Interline Transfer Power HAD CCD (×3)
Picture elements:	752(H) × 582(V)
Sensing area:	6.4 mm × 4.8 mm
Video signal system:	PAL standard
Scanning system:	625 lines, 2:1 interlace
Sync system:	Internal or external with VBS or BS
Horizontal resolution:	750TV lines
Lens mount:	38 Bayonet mount
Sensitivity:	2000 lx with F8.5
Minimum illumination:	6.5 lx (F1.4)
Gain control:	AGC/0 to 18 dB (1dB step)/ISO (400, 800, 1600) switchable
Electronic shutter:	OFF (1/50s)/STEP/Long Exp./C. Scan switchable STEP: 1/120(FL), 1/125, 1/250, 1/500, 1/1000, 1/2000, 1/4000, 1/10000 (seconds) Long Exp.: 255 to 1 frames (for field mode), 256 to 2 frames (for frame mode), OFF C. Scan: 310/625 to 1/625(H), OFF
CCD IRIS control:	ON/OFF switchable
White balance:	ATW, AWB (R/B Paint: -7 to 0 to +7) MANU (R/B Gain: –99 to 0 to +99)
Signal-to-noise ratio:	58 dB
Linear matrix:	ON/OFF switchable
Shading compensation:	OFF/1 to 9
Master pedestal:	–99 to 0 to +99
Detail:	–99 to 0 to +99
Phase control:	H/SC phase control H. phase: –99 to 0 to +99 SC phase: 0/180 Fine: –99 to 0 to +99
Gamma:	ON/OFF switchable
Knee:	1/2 switchable
Green-on-sync:	ON/OFF switchable
Memory bank:	A/B switchable
Memory protect:	ON/OFF switchable
Data send:	A>B, B>A switchable
Baud rate:	9600, 4800, 2400, 1200
Flash mode:	OFF/master/slave switchable
Printer trigger:	ON/OFF switchable
Video out:	VBS: 1.0 Vp-p, 75 Ω, sync negative RGB: 0.7 Vp-p, 75 Ω Y/C: Y: 1.0 Vp-p, 75 Ω, sync negative C: 0.3 Vp-p, 75 Ω, without sync Y/R-Y/B-Y: Y: 1.0 Vp-p, 75 Ω R-Y: 0.525 Vp-p, 75 Ω B-Y: 0.525 Vp-p, 75 Ω
Operating temperature:	–5 to 45°C (23 to 113°F)
Storage temperature:	–20 to 60°C (–4 to 140°F)
Power requirements:	DC 12 V (supplied from CMA-D2CE or CCU-M5P)
Power consumption:	7.8 W
Mass:	Approx. 670 g (1 lb 8 oz)
Connectors:	LENS (6-pin), RGB/SYNC (D-sub 9-pin), GENLOCK IN (BNC), DC IN/REMOTE (12-pin), VIDEO OUT (BNC), CCU (20-pin), FLASH (Synchronous socket), REMOTE (8-pin)

Dimensions



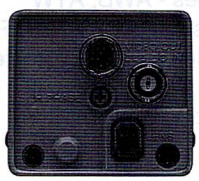
Unit: mm (inch)

DXC-107AP

CCD colour video camera

•High resolution 1/2-inch IT Hyper HAD sensor CCD offers high quality picture •High sensitivity in minimum illumination of only 4.5 lx with F1.2 lens •Signal-to-noise ratio of 46 dB •High horizontal resolution of 460TV lines •S-video output is available through the CMA-D2CE Camera Adaptor •Four alternative white balance control: Automatic control modes—AWB (Auto White Balance)/ATW (Auto Tracing White), Preset modes—INDOOR (3200 K)/OUTDOOR (5600 K) •3-position selectable CCD-IRIS covers various light conditions—BACKLIGHT/STANDARD/SPOTLIGHT •Variable speed electronic shutter •Built-in four digit ID number generator •C-mount adoption •External genlock capability of VS •Together with the YS-W150P/YS-W250P Camera Adaptor, video and sync signals, and DC power can be transmitted up to 300 metres away through a single 5C-2V coaxial cable •Remarkably compact and lightweight

Lens is optional



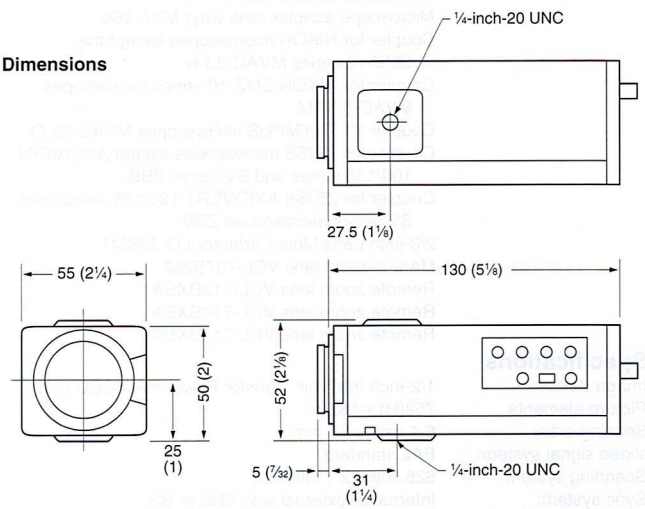
Supplied accessories:
- Lens connector
- Lens mount cap
- Operating instruction manual

Optional accessories:
- Camera adaptor YS-W150P
- Camera adaptor CMA-D2CE
- Camera adaptor YS-W250P
- DC cable CCDC-5/10/25/50A/100A
- 12-pin multi-core cable CCMC-12P02/05/10/25
- Microscope adaptor MVA-12
- Coupler for NIKON microscopes except the SMZ-10 series MVAC-33-N
- Coupler for NIKON SMZ-10 series microscopes MVAC-33-SM
- Coupler for OLYMPUS microscopes MVAC-33-O
- Coupler for ZEISS microscopes except AXIOVERT 100/135 series and SV series ZBB
- Coupler for ZEISS AXIOVERT 100/135 series and SV series microscopes ZSV

Specifications

Image device:	1/2-inch InterlineTransfer Hyper HAD CCD
Picture elements:	752 × 582 (V)
Sensing area:	6.4 mm × 4.8 mm
Video signal system:	PAL standard
Sync system:	Internal or external with VS
Horizontal resolution:	460TV lines
Lens mount:	C mount
Sensitivity:	F5.6 at 2,000 lx (AGC off)
Minimum illumination:	4.5 lx with F1.2 (AGC on)
Gain control:	AGC ON/OFF switchable
Electronic shutter:	OFF, 1/120, 1/250, 1/1000, 1/2000, 1/4000, 1/10000 (seconds)
S/N ratio:	46 dB
CCD IRIS control:	BACKLIGHT/STANDARD/SPOTLIGHT switchable
Phase control:	H phase control
Video out:	VBS: 1.0 Vp-p, 75 Ω, sync negative Y/C: Y: 1.0 Vp-p, 75 Ω, sync negative C: 0.3 Vp-p, 75 Ω, without sync
Operating temperature:	0 to 40°C (32 to 104°F)
Power requirements:	DC 12 V from CMA-D2CE/D7CE DC 28 V from CMA-D7CE/YS-W250P
Power consumption:	3.3 W using CCMC-12P multi-core cable or CCDC DC cable (DC 12 V) 6.3 W using coaxial cable (DC 28 V)
Maximum cable length:	300 m using 5C-2V coaxial cable and CMA-D7CE/YS-W250P 100 m using CCDC-100A DC cable and CMA-D2CE 25 m using CCMC-12P25 multi-core cable and CMA-D2CE/D7CE
White balance:	AUTO: ATW or AWB PRESET: 3200 K or 5600 K
Mass:	Approx. 360 g (12.7 oz) without lens
Connectors:	DC IN/VIDEO OUT (BNC) DC IN (12-pin) LENS (4-pin)

Dimensions



Unit: mm (inch)

CMA-D3CE
Camera Adaptor for DXC-390P

•Supplies DC power and transmits video/sync signal between the adaptor and the DXC-390P with CCZ-A cable and CCMC-3MZ cable
•Connects with optional RM-C950 remote control unit
•AC IN/DC IN

Connectors CAMERA (26-pin MULTI)
VIDEO OUT (BNC)
SYNC IN / OUT (BNC)
TRIG INPUT (BNC)
W. E OUTPUT (BNC)
REMOTE (mini DIN 8 pin)
Power requirements:
AC 100-240 V or
DC (10.5 to 15.0 V)
Dimensions: 210 (W) × 44 (H) × 210 (D) mm
Supplied accessories:
Operation manual
AC cable

VIDEO CAMERAS

CMA-H10
Camera adaptor for DXC-H10

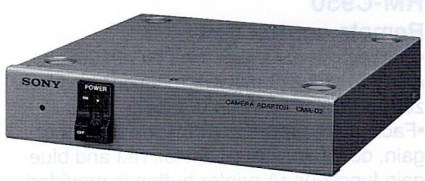
•Transmits DC power and video sync signals between the camera and the adaptor with a CCZ-A cable
•Maximum cable length: 100 m with CCZ-A100 cable to camera
•19-inch EIA standard rack mountable

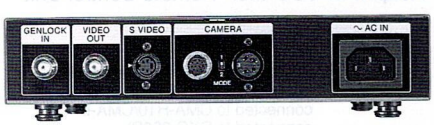
Connectors: CAMERA (26-pin)
VIDEO OUT (BNC)
SYNC IN/OUT (BNC)
TRIGGER INPUT (BNC)
WEN PULSE OUTPUT (BNC)
REMOTE (mini DIN 8-pin)
DC out: 15 V
Power requirements:
120 V AC, 50/60 Hz
Power consumption:
40 W (AC), 30 W (DC)
Dimensions: 210 (W) × 44 (H) × 210 (D) mm
(8 3/8 × 1 3/4 × 8 3/8 inches)
Mass: 1.4 kg (3 lb 1 oz)
Supplied accessories:
AC power cord
Operation manual

CMA-D2CE
Camera adaptor for DXC-9100/950P/ 107AP/LS1P

•Supplies DC power with a CCDC cable to cameras
•Transmits DC power and video/sync signals between the camera and the adaptor with a CCMC cable
•Maximum cable length:
100 m with CCDC-100A cable
25 m with CCMC-12P25 cable
•19-inch EIA standard rack mountable

Connectors: CAMERA (12-pin MULTI)
CAMERA (4-pin DIN)
VIDEO OUT (BNC)
S VIDEO OUT
(Mini DIN 4-pin)
GEN-LOCK IN (BNC)
DC out: 13 V, 1.3 A
Power requirements:
AC 100 to 240 V, 50/60 Hz
Power consumption:
24.5 W
Dimensions: 210(W) × 50(H) × 200(D) mm
(8 3/8 × 2 × 7 7/8 inches)
Mass: 1.1 kg (2 lb 7 oz)
Supplied accessories:
AC power cord
Operation manual





YS-W150P
AC adaptor for DXC-107AP

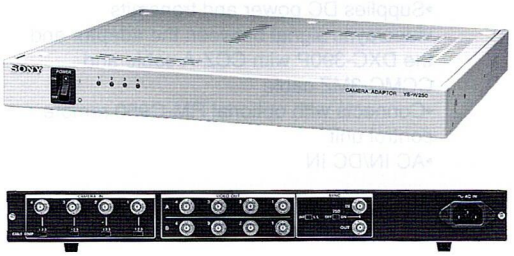
•Power supply and video/sync signal transmission by connecting to the camera with a single coaxial cable
•Internal or external synchronization with VS or AC line lock
•Extends the cable length up to 600 metres by using 7C-2V coaxial cable

Connectors: CAMERA IN (BNC)
VIDEO OUT (BNC × 2)
SYNC IN/OUT (BNC, loop-through, 75 Ω ON/OFF)
Power requirements:
AC 220 to 240 V, 50Hz
Power consumption:
15 W
Operating temperature:
-10 °C to 50 °C (14 °F to 122 °F)
Maximum cable length:
300 m using RG-59B/U (3C-2V)
500 m using RG-6A/U (5C-2V)
600 m using RG-11A/U (7C-2V)
Dimensions: 212(W) × 52(H) × 330(D) mm
(8 3/8 × 2 1/8 × 13 inches)
Mass: 1.9 kg (4 lb 3 oz)

YS-W250P
AC adaptor for DXC-107AP

•Power supply and video/sync signal transmission by connecting to the camera with a single coaxial cable •Up to four cameras can be connected •Internal or external synchronization with VS or AC line lock •Extends the cable lengh up to 300 m with 5C-2V coaxial cable

Connectors: CAMERA IN 1 to 4 (BNC × 4)
VIDEO OUT A 1 to 4 (BNC × 4)
VIDEO OUT B 1 to 4 (BNC × 4)
SYNC IN/OUT (BNC, loop-through, 75 Ω ON/OFF switch)
Power requirements:
AC 220 to 240 V, 50 Hz
Power consumption:
48 W
Dimensions: 424 (W) × 52(H) × 330(D) mm (16 3/4 × 2 1/8 × 13 inches)
Mass: 3.6 kg (7 lb 15 oz)



AC-E90HG
Camera adaptor for the DXC-LS1P

•Supplies DC power to the DXC-LS1P

DC out: 9 V, 800 mA
Power requirements:
AC 220 to 230 V, 50/60 Hz
Power consumption:
14 W
Dimensions: 58 × 86 × 50.5 mm (2 3/8 × 3 1/2 × 2 inches)
Mass: 500 g (1 lb 2 oz)
Cable length: 2 m

RM-C950
Remote control unit

•Full remote control of the DXC-9100P /950P/H10/390P camera functions and lens zoom/focus/iris functions via RS-232C •Facilitated operation with knob control of gain, detail, master pedestal, red and blue gain functions •A printer button is provided •Power is supplied through the DXC-9100P/ 950P connected to the CMA-D2CE Camera Adaptor or CCU-M5P Remote Control Unit

Power requirements:
DC 12 V (supplied from DXC-9100P/950P connected to CMA-D2CE or CCU-M5P or DXC-H10 connected to CMA-H10/CMA-D3CE connected to DXC-390P)
Operating temperature:
–5 to 45°C (23 to 113°F)
Connectors: CAMERA (8-pin)

Control: IRIS (AUTO/MANUAL)
ZOOM
FOCUS
COLOUR BAR
MENU DISPLAY
GAIN (STEP/AGC/ISO)
SHUTTER SPEED
(OFF/STEP/LONG EXP/C.SCAN/CCD IRIS)
AE WINDOW
(LARGE/MEDIUM/SPOT)
FIELD/FRAME (CCD INTEGRATION MODE)
COLOUR TEMPERATURE
(3200 K/5600 K)
WHITE BALANCE
(AUTO/MANUAL/ATW)
LINEAR MATRIX
SHADING COMPENSATION
MASTER PEDESTAL
DETAIL
H. PHASE
SC PHASE
FINE
GAMMA
KNEE
G. SYNC
MEMORY BANK
MEMORY PROTECT
DATA SEND
D-SUB OUTPUT (VBS/Y/C, RGB/COMPONENT)
BAUD RATE
FLASH
PRINTER TRIGGER

Mass: Approx. 400 g (14 oz)
Dimensions: 212(W) × 41(H) × 132(D) mm (8 3/8 × 2 5/8 × 5 1/4 inches)
Supplied accessories:
Connection cable (3 m)
Operation manual

LO-UCMT
C-mount adaptor for DXC-LS1P

•For mounting C-mount type lens on the DXC-LS1P

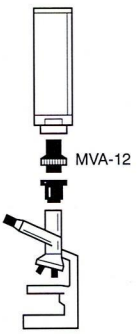
MVA-12

Video camera microscope adaptor

•For 2/3-inch video camera with C-mount (DXC-107AP*)

Video camera mount:
C-mount
Applicable microscope:
Biological or metallurgical microscope with straight tube
Dimensions: 48(dia.) × 98(L) mm
(11 5/16 × 3 7/8 inches)
Mass: 120 g (4.2 oz)

* Although the MVA-12 can also be used with the DXC-107AP(1/2-inch camera), the effective viewing area should be adjusted.



MVAC-33 series

Coupler

•MVAC-33-N: For NIKON microscopes except the SMZ-10 series
•MVAC-33-SM: For NIKON SMZ-10 series microscopes
•MVAC-33-O: For OLYMPUS microscopes
•Used with the MVA-12/20/33/40/41A

Dimensions: MVAC-33-N;
48(dia.) × 44(L) mm
(11 5/16 × 1 3/4 inches)
MVAC-33-SM;
47(dia) × 87.5(L) mm
(1 7/8 × 3 1/2 inches)
MVAC-33-O;
55(dia.) × 48(L) mm
(2 1/4 × 1 15/16 inches)
Mass: MVAC-33-N; 50 g (1.8 oz)
MVAC-33-SM; 125 g (5 oz)
MVAC-33-O; 100 g (3.6 oz)

MVAC-33-N

MVAC-33-SM

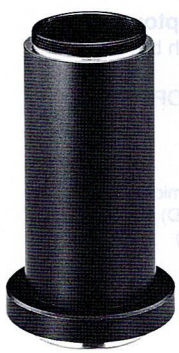
MVAC-33-O

ZBB and ZSV

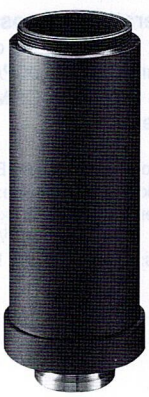
Coupler

•ZBB: For Zeiss microscopes except the AXIOVERT 100/135 series and SV series
•ZSV: For Zeiss AXIOVERT 100/135 series and SV series microscopes
•Used with the MVA-12/20/33/40/41A

Dimensions: ZBB;
62(dia.) × 110(L) mm
(2 1/2 × 4 3/8 inches)
ZSV;
52(dia) × 131(L) mm
(2 1/8 × 4 1/4 inches)



ZBB



ZSV

MVA-40

Microscope adaptor

•For mounting the DXC-327BP/9100P/950P series onto various types of microscopes
•Automatic/manual light control

Dimensions: 74 (dia.) × 108(L) mm
(max. width of 116 mm)
(3 × 4 3/8 inches)
(max. width of 4 5/8 inches)
Mass: 600 g (1 lb 5 oz)

MVA-41A
Microscope adaptor
•For mounting the DXC-327BP/9100P/950P series onto various types of microscopes

Dimensions: 50(dia.) × 77(L) mm (2 × 3 1/8 inches)
Mass: 180 g (6 oz)

MVA-690
Operation microscope adaptor (one way)
•For 2/3-inch video camera with bayonet mount (DXC-H10)
•For Carl Zeiss OPMI series/TOPCON 600 series

Video camera mount: Bayonet
Applicable microscope: Operation microscope
Dimensions: 147.5 (W) × 98.5 (H) × 50 (D) mm (5 7/8 × 4 × 2 inches)
Mass: 590 g (1 lb 5 oz)

MVA-265
Operation microscope adaptor (one way)
•For 1/2-inch video camera with bayonet mount (DXC-9100P/950P)
•For Carl Zeiss OPMI series/TOPCON 600 series

Video camera mount: Bayonet
Applicable microscope: Operation microscope
Dimensions: 148(W) × 92(H) × 50(D) mm (5 7/8 × 3 5/8 × 2 inches)
Mass: 550 g (1 lb 3 oz)

MVA-380
Operation microscope adaptor (two way)
•For 2/3-inch video camera with bayonet mount
•For Carl Zeiss OPMI series/TOPCON 600 series
•Focus can be remotely controlled by the supplied remote controller

Video camera mount: Bayonet
Applicable microscope: Operation microscope
Dimensions: 70 (W) × 94 (H) × 184 (D) mm (2 7/8 × 3 3/4 × 7 1/4 inches)
Mass: 750 g (1 lb 10 oz)

LENSES FOR DXC-H10 (2/3-inch Bayonet mount type)

	VCL-04UVM	VCL-12UVM
Mount	Ultra mount	Ultra mount
Focal length	4 mm	12 mm
Maximum aperture ratio	1.4	2.0
Filter size	M10.5 x 0.5 mm	M10.5 x 0.5 mm
Back focal length	5.00 mm (IN AIR)	10.82 mm (IN AIR)
Focusing range	55 mm ~ ∞	200 mm ~ ∞
Mass	4 g (0.14 oz)	5 g (0.17 oz)
Dimensions:	12 (dia) × 14 (L) mm (½ × 9/16 inches)	12 (dia) × 22 (L) mm (½ × 29/32 inches)

LENSES FOR DXC-950P (1/2-inch Bayonet mount type)

	VCL-707BXM	S16 × 6.7BMD-D38	VCL-714BXEA	VCL-717BXEA
Mount	Bayonet	Bayonet	Bayonet	Bayonet
Focal length	7.5 to 52.5 mm	6.7 to 107 mm	7.5 to 105 mm	7 to 119 mm
Zoom ratio	7×	16×	14×	17×
Zoom control	Manual	Remote	Remote	Remote
Focus control	Manual	Remote	Remote	Remote
Iris control	Manual	Remote	Remote	Remote
Maximum aperture ratio	1.6	1.4	1.4	1.4
Minimum object distance	0.3 m	0.9 m	1.1 m	0.95 m
Macro	Not applicable	Applicable	Applicable	Not Applicable
Filter size	M58 × 0.75 mm	M77 × 0.75 mm	M72 × 0.75 mm	M86 × 1.0 mm
Mass	560 g (1 lb 4 oz)	1.25 kg (2.7 lb)	1.13 kg (2 lb 6 oz)	1.7kg (3 lb 12 oz)
Dimensions	60(dia.) × 125(L) mm (2 3/8 × 5 inches)	120(dia.) × 165 (L) mm (4 3/4 × 6 1/2 inches)	110(dia.) × 185.9(L) mm (4 3/8 × 7 3/8 inches)	107(W) × 117(H) × 181.5(D) mm (4 1/4 × 4 5/8 × 7 1/4 inches)
Notes	—	Zoom/Focus/Iris functions can be remotely controlled from the RM-C950		

Video camera accessory combinations

		DXC-D30P/D30WSP	DXC-637P	DXC-327BP	DXC-950P	DXC-107AP	DXC-9100P	DXC-LS1P	DXC-H10	DXC-390P
Camera control unit	CCU-TX7P	○	○							
	CCU-M7P	○*1	○*1	○*2						
	CCU-M5P	○*5	○	○	○		○			
AC adaptor	CMA-D3CE									○
	CMA-H10								○	
	CMA-8ACE	○	○	○						
	CMA-D2CE				○	○	○	○		○
	CMA-D7CE					○				
	YS-W250P					○				
Viewfinder	DXF-701CE	○								
	DXF-601CE		○	○						
	DXF-41		○	○						
	DXF-51		○	○						
Carrying case	LC-420			○						
	LC-421	○	○							
	LC-304SFT	○	○	○						
Tripod adaptor	VCT-12									
	VCT-14	○	○	○						
	VCT-U14	○	○	○						
Intercom headset	DR-100	○	○	○						
Microscope/endoscope adaptor	MVA-12					△*3				
	MVAC-33	○	○	○	○	○	○			
	MVA-40			○	○		○			
	MVA-41A			○	○		○			
	MVA-265				○		○			
	MVA-690								○	
	ZBB/ZSV	○	○	○	○	○	○			
Others	DC-520	○	○	○						
	CAC-4	○	○	○						
	CAC-12	○	○	○						
	RM-M7G	○	○*1	○*2						
	CA-327P	○*4	○*4	○*4						
	CA-537P	○	○	○						
	CA-511	○	○	○						
	CA-512P	○	○							
	CA-513	○	○	○						
	CA-325AP	○	○	○						
	CA-325B	○	○	○						
	LO-32BMT			○	○		○			
	LO-UCMT							○		
	RM-C950			○	○		○			

○ Recommendable △ Usable

*1 Gamma control cannot be used.
*2 Knee and gamma controls cannot be used.
*3 Although the MVA-12 is the Microscope Adaptor for 2/3-inch video cameras, it can also be used with the DXC-107AP. In this case, the effective viewing area is changed.
*4 Available for CA-327P models with serial No. 40101 and above.
*5 Matrix (STD, H.SAT, FL) cannot be controlled.

SECTION 3 NON-LINEAR/EDITOR/DME/SWITCHER

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SEG-2550AP 103

4. Chromakeyer
DCK-500P 104

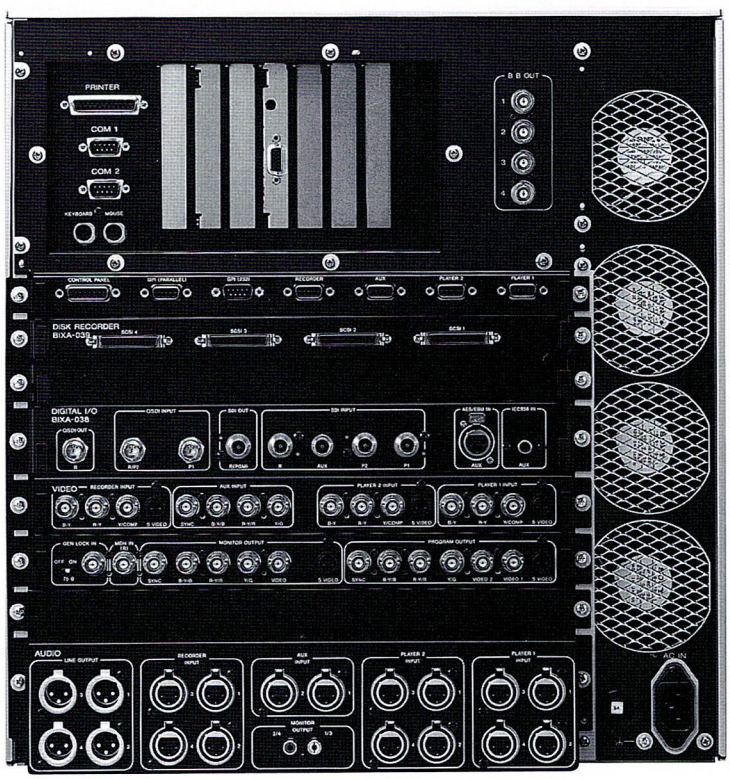
ES-7

EditStation™

•The digital system for power production •Direct Digital Link with DSR-60P/80P/85P VTR •x4 Transferring capability when combined with the DSR-85P VTR •High picture quality •Hybrid operation capability including the unique Disk B-roll™ operation •SDI and SDTI (QSDI) digital interface capability with optional boards •2-channel playback and 1-channel recording for real-time layering •Sophisticated Graphical User Interface (GUI) provided for efficient operation •ClipLink™ operation to save valuable disk space and time •Superb performance DME Switcher •Multiple input/output formats provided •Direct touch graphics function to enable graphics creation to be performed directly on the live video •Variable compression rate •Optional ESDraw kit available in addition to the standard TextComposer •Control panel available for intuitive operation •Fixed Speed DMC •16:9 editing mode •User Programmble Effect

Supplied accessories:
- Power cord
- Mouse
- Keyboard
- Extension cables for keyboard and mouse (4m)
- Parallel GPI D-sub 15-pin connector
- Software and online manual (CD-ROM disc)
- Windows NT package (CD-ROM disc and manual)
- Operating instructions

Optional accessories:
- Control Panel ESBK-7011
- Basic DME Switcher Board ESBK-7021
- 3D Effect Board for Basic DME Switcher Board ESBK-7022
- Advanced DME Switcher Board ESBK-7023
- 3D Effect Board for Advanced DME Switcher Board ESBK-7024
- SDTI (QSDI) Interface Board ESBK-7031
- SDI Interface Board ESBK-7032
- Disk Recorder Board ESBK-7041
- Disk Unit ESBK-7046
- SCSI Option ESBK-7051
- Ethernet Option ESBK-7052
- SCSI Cable ESBK-7053
- Additional Memory Set ESBK-7054
- ESDraw ESBK-7071
- EditStation Operation Manual ESBK-7091E
- ESDraw Operation Manual ESBK-7092E
- Rack Mount Kit for ES-7 RMM-ES7
- Rack Mount Kit for ESBK-7046 RMM-ES701



Rear Panel of ES-7

Specification

General

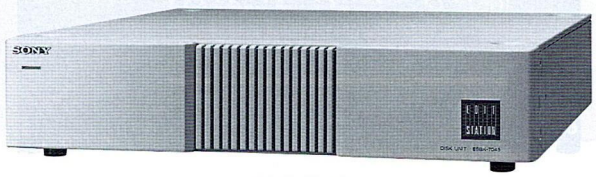
Power requirement:	AC 220/240V, 50/60Hz
Operating voltage:	AC 180 to 264V, 48 to 63Hz
Power consumption:	Main Unit (ES-7): Approx. 450W Disk Unit (ESBK-7046): Approx. 100W
Operating temperature:	5 to 35°C (41 to 95°F)
Dimensions:	Main Unit (ES-7): 424 (W) × 431.6 (H) × 478 (D) mm (16¾ × 17 × 18⅞ inches) Disk Unit (ESBK-7046): 424 (W) × 88 (H) × 478 (D) mm (16¾ × 3½ × 18⅞ inches) Control Panel (ESBK-7011): 372 (W) × 76 (H) × 228 (D) mm (14¾ × 3 × 9 inches)
Mass:	Main Unit (ES-7): 35 kg (77 lb 3 oz) Disk Unit (ESBK-7046): 14 kg (30 lb 14 oz) Control panel (ESBK-7011): 1.7 kg (3 lb 12 oz)

PC

CPU:	Pentium 200MHz MMX
OS:	Windows NT4.0
Memory:	64MB
Hard disk drive:	2 GB
Floppy disk drive:	1 × 720KB/1.44MB
CD-ROM drive:	1 × ATAPI, Quadruple (x24) speed
Card slot:	32-bit PCI bus (33MHz) and 16-bit ISA bus
VGA:	1024 × 768, 65K colors
Mouse:	1 × Mini Din 6-pin

1. Non-linear Editing System

ESBK-7011



ESBK-7046

Keyboard: 1 × Mini Din 6-pin

Video

Analogue video inputs: 3 sources (P1/P2/R) selectable from Y/R-Y/B-Y, Composite or Y/C
BNC: Y/R-Y/B-Y, Composite
MiniDin 4-pin: Y/C
1 sources (AUX) selectable from Composite, Y/R-Y/B-Y or G/B/R/Sync., BNC
1 × Gen. Lock IN, BNC

Digital video inputs: 2 (P1, P2/R) × SDTI (QSDI), BNC
3 (P1, P2, R) × SDI, BNC

Analogue video outputs: PGM & MONITOR outputs, Y/R-Y/B-Y, G/B/R/Sync., Composite and Y/C
BNC: Y/R-Y/B-Y, G/B/R/Sync., Composite
MiniDin 4-pin: Y/C
4 × Black Burst output, BNC

Digital video outputs: 1 × SDI PGM output (R), BNC
1 × SDTI (QSDI) PGM output (R), BNC

Audio

Audio: Up to 22-ch input and 4-ch output

Analogue audio inputs: 4-ch × 3 sources (P1/P2/R), XLR 3-pin
2-ch × 1 source (AUX), XLR 3-pin

Digital audio inputs: 2-ch × 1 source (AUX), selectable from AES/EBU or IEC-958

Analogue audio outputs: LINE OUT: 4-ch, XLR 3-pin
MONITOR OUT: 2-ch (1/3 & 2/4), Pin-jack

Digital audio outputs: Multiplied as SDI/SDTI (QSDI)

Compression

Compression scheme: DV Compression

DME Switcher

Basic DME Switcher: Y:R-Y:B-Y=4:1:1, 13.5MHz, 8-bit
(ESBK-7021) Chromakey & luminance key: 1 bit (linear key)
Downstream keyer: 8 bit

Advanced DME Switcher: Y:R-Y:B-Y=4:2:2, 13.5MHz, 8-bit
(ESBK-7023) Chromakey & luminance key: 8 bit (linear key)
Downstream keyer: 8 bit

Control

P1, P2, AUX & R: RS-422A, D-Sub 9-pin
GPI (Serial): RS-232C, D-Sub 9-pin
GPI (Parallel): Active low TTL, D-Sub 9-pin
Control Panel: D-Sub 15-pin

Graphics/title

Pixel format: 4:2:2:4 (Y/R-Y/B-Y/Alpha)
Font: True type
Import format: BMP, TGA, TIFF, PICT, JPEG

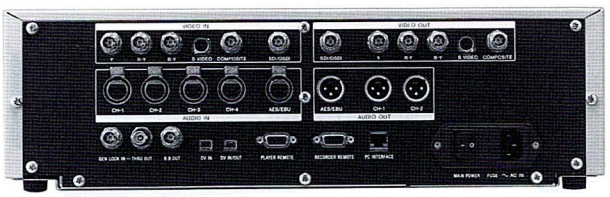
Others

EDL Import/export format: Sony BVE-9100 Format

ES-3

EditStation

•Flexible non-linear editing system •Offers DV compression operation and uncompressed operation(option) •Direct Digital Link with DVCAM VTR •High picture quality •Accelerated rendering effects •SDI and SDTI(QSDI) digital interface capability with option •Sophisticated Graphical User Interface (GUI) provided for efficient operation •ClipLink operation to save valuable disk space and time •Multiple input/output formats provided •Video special effects (including third-party effect software) •Standard Titler •Control panel available for intuitive operation •Text EDL output •Open software architecture •Support of QuickTime/AVI file format •Multiple Languages for GUI



Supplied items:	Main unit
	PCI interface board
	ES-3 application software
	Title software
	Installation instructions
	AC power code
	Modular cable
	Cable splitter
Optional accessories:	ESBK-3021 Rendering acclerator card
	ESBK-3031 SDI/SDTI (QSDI) Interface option
	ESBK-7011 Control panel

Specifications

General

Main Unit

Power Requirements:	AC 220-240 V
	50/60 Hz
Power Consumption:	100 W
Operating Temperature:	5~35 °C (41~95 °F)
Dimensions:	442 (W) × 134 (H) × 365 (D) mm (without projection)
	(17 ½ × 5 ⅜ × 14 ⅜ inches)
Mass:	11 kg (24 lb 4 oz)
Video Signal Standard:	PAL
Video Processing:	Y:R-Y:B-Y=4:2:2, 13.5 MHz, 10-bit
Audio Processing:	48 kHz, 16-bit
Compression Scheme:	DV compression (fixed 25 Mbit/s)
	Uncompressed with optional ESBK-3032

PCI Interface Board

Standard:	PC/AT PCI Rev 2.1
Dimensions:	PCI Full size

Signal Connectors

Analog Inputs	
COMPOSITE:	BNC
Y, R-Y, B-Y:	BNC
S VIDEO:	Mini-DIN 4-pin
GEN LOCK IN, THRU OUT:	BNC
AUDIO CH-1, 2, 3, 4:	XLR 3-pin
Analog Outputs	
COMPOSITE:	BNC
Y, R-Y, B-Y:	BNC
S VIDEO:	Mini-DIN 4-pin
B.B. OUT:	BNC
MONITOR:	Mini-DIN 4-pin (at PCI interface board)
AUDIO CH-1, 2:	XLR 3-pin (2)
AUDIO MONITOR:	Stereo Mini Jack (at Cable splitter)
Digital Inputs	
SDI/SDTI(QSDI):	BNC * ESBK-3031 is required.
DV IN:	DV-type 4-pin Jack
AES/EBU:	XLR 3-pin
Digital Outputs	
SDI/ SDTI(QSDI):	BNC * ESBK-3031 is required.
AES/EBU:	XLR 3-pin
Digital Input/Output	
DV IN/OUT:	DV-type 4-pin Jack

Control Connectors

PLAYER REMOTE:	D-sub 9-pin, RS-422A
RECORDER REMOTE:	D-sub 9-pin, RS-422A
PC INTERFACE:	Modular Jack 8-pin
MAIN UNIT I/F:	Modular Jack 8-pin
	(at PCI interface board)
CONTROL PANEL:	D-sub 15-pin (at PCI interface board)

Titler

Pixel Format:	Y/R-Y/B-Y/Alpha=4:2:2:4
Display Area:	720x576 for PAL
Font:	True type
Import Format:	BMP, TGA, TIFF

RM-450A

Editing control unit

•Can be connected to 9-pin equipped editing VTR on both the player side and recorder side •The RM-450A not only allows CTL based editing but also makes Time Code editing possible •Provides the Relative Time Code (RTC) editing mode, in which time code is used as an edit reference and time code progress is like CTL on the LED counter •The AUDIO COUNTER RESET function automatically sets the editing point first designated to "0:00:00:00" •Can use the Assemble and Insert (V/A1/A2) edit modes, and provides editing functions such as editing IN-POINT/OUT-POINT ENTRY, PREVIEW, TRIM, AUTO EDIT/END, REVIEW/JUMP, GO TO, AUDIO SPLIT, and LAST EDIT •The function keys are laid out to enable easy operation •Provides the JOG/SHUTTLE dials on both the player side and recorder side •Accepts REF. VIDEO IN (reference video input) for synchronized operation •Can memorize the pinch on delay and adjust the editing in-point automatically •Mode setting is very easy and convenient when using the preset switches on the front panel •A cue pulse out is provided for external equipment •Indicates the "Error" and error number on the LED counter along with a warning sound •A built-in self-diagnostic function improves serviceability and make maintenance easy

Supplied accessories:
- AC power cord
- Error message chart
- Operation manual

Optional accessories:
- 9-pin remote control cable RCC-5G/10G/30G
- Rack mount kit RMM-450
  (for 19-inch EIA and SONY SU-512 rack)

Specifications

Power requirements:	AC 198 to 264V, 48 to 63Hz
Power consumption:	11W
Mass:	Approx. 3.1 kg (61 lb 13 oz)
Dimensions:	390 (W) × 93 (H) × 265 (D) mm (15 × 3¾ × 10½ inches)
Operating temperature:	0 to 40°C (32 to 104°F)
Edit reference:	CTL, SMPTE/EBU LTC, VITC
Reference video input:	0.5Vp-p to 2.0Vp-p negative, 75Ω, unbalanced
External sync input:	0.5Vp-p to 5.0Vp-p negative, 75Ω, unbalanced
Cue pulse signal:	Active low: low level 0 to 0.5V/high 3.5 to 5.0V

PVE-500

Editing control unit

•Three VTR control capability in A/B roll editing •Serial switcher interface via 9-pin RS-422A connection •Both parallel and serial audio mixer interface capability •Handles TC (Time Code), CTL (Control Track Signal), and RTC (Relative Time Code) as editing reference •Assemble and Insert (V, A1, A2) editing capability •Features variable speed control over VTRs equipped with Dynamic Tracking function •Up to 99 edits can be stored in the built-in EDL memory •Audio split edit capability offers effective insertion of sound effects •Snapshot memory number in the DFS-500P and the DFS-300P can be stored and recalled by the Edit Number •Reference video input allows synchronized operation with other equipments •Equipped with an RS-232C interface allowing SAVE/LOAD of the EDL data onto a floppy disk •A GPI output enables basic control of peripheral equipments such as audio tape recorders and title generators which cannot be directly interfaced with the PVE-500 •The two search dial operation enables quick and easy access to the edit points

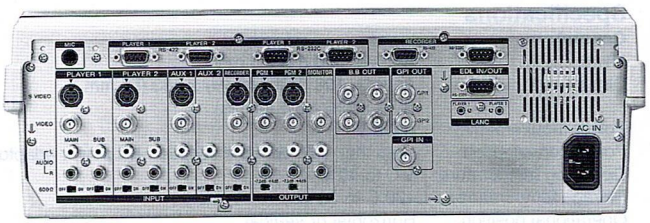
Supplied accessories:	AC power cord
	Operation manual
Optional accessories:	Audio mixer control cable RCC-5AA
	9-pin remote control cable RCC-5/10/30G
	Rack mount metal RMM-500

Specification

General	
Power requirements:	AC 100/120/220 to 240 V ±10 %, 47.5 to 63 Hz
Power consumption:	11W maximum
Operating temperature:	5 to 40°C (41 to 104°F)
Storage temperature:	–20 to 60°C (–4 to 140°F)
Dimensions:	390 (W) × 94 (H) × 265 (D) mm
	(15⅜ × 3¾ × 10½ inches)
Mass:	3.2 kg (7 lb 8 oz)
Systems	
Editing reference:	CTL, RTC, SMPTE/EBU Time Code
Edit accuracy:	±0 frame with time code
	±1 frame with CTL
Memory capacity:	99 events
Controls	
VTR interface:	RS-422A 9-pin remote connector
Switcher interface:	RS-422A 9-pin remote connector
Mixer interface:	9-pin serial/parallel switchable
Controllalble VTRs:	1 recorder and up to 2 players

FXE-120P

•Integration of an editing controller, video switcher, audio mixer and digital effects generator •Three VTR control (RS-422A/RS-232C) •LANC (Local Application Control bus system) interface for controlling home-use LANC VTRs and camcorders as player VTRs •Time code based editing •Equipped with two buses •GPI input/output •8-bit quantizing, 4:1:1 digital processing •Built-in Frame Synchronizers allow editing without a Time Base Corrector •140 wipe patterns •Digital effects (Mix Effect/Fade Effect/ Input Effects) •Built-in chromakeyer and luminance keyer •Colour correction capability •25 different colour background •Editing memory for 99 events •Saving/ loading of EDL Data is possible



Supplied Accessories	AC power cord (1) Instruction manual (1) Userís guide (1) LANC cord (2)
Optional Accessories	RCC-5/10/30G RS-422A remote cable SMF-3036C (RS-232C remote cable, 9-pin to 25-pin)

Specifications

General

Signal system:	PAL
Power requirements:	AC 220 to 240 V ± 10%, 50/60Hz ± 5%
Power consumption:	Maximum 65 W
Operating temperature:	5 to 40°C (41 to 104°F)
Storage temperature:	-20 to 60°C (-4 to 140°F)
Dimensions:	424 (W) × 138.5 (H) × 437.5 (D) mm (16 ¾ × 5 ½ × 17 ¼ inches)
Mass:	Approx. 7.3 kg (16 lb 1 oz)

Systems

Time counter:	Internal time counter (3)
Time count display range:	Time code: 00:00:00:00 to 23:59:59:24 CTL: ± 9:59:59:24 Full edit mode
Editing mode:	Assemble edit: Video, Audio 1/2 Insert Edit: Video Audio 1/2 First edit, Time code insert Split edit, Dynamic Motion Control (DMC)
Edit type:	MIX, WIPE, SYNC-ROLL, CUT, MANUAL 1st Edit, Audio Split Edit, DMC Control
Edit reference:	CTL, LTC, SMPTE/EBU time code, 8mm time code, RC time code, DV time code
Edit Accuracy:	RS-422A: ±0 frame with TC, ±1 frame with CTL RS-232C: ±1 frame with TC LANC: ±5 frame with RC time code
Transition time range:	0 to 999 (unit: frames)
Pinch-on Delay:	Simultaneous measurement of pinch-on delay for up to three VCRs connected to RS-422A/RS-232C/ LANC connectors
EDL memory capacity:	99 edits
Split edit reference:	Audio or Video input

Control

VTR Interface:	RS-422A: D-sub 9-pin RS-232C: D-sub 9-pin LANC: stereo mini-mini jack
Controllable VTR:	1 recorder, up to 2 players
GPI interface:	GPI IN (BNC) GPI OUT (BNC) (2)
EDL Interface:	EDL IN/OUT (D-sub 9-pin)

Video

Video inputs

Composite:	BNC (4), unbalanced (PLAYER 1, PLAYER 2, AUX1, RECORDER) Video: 1.0 Vp-p, 75 Ω Sync: 0.3 Vp-p Burst: 0.3 Vp-p
S-Video	4-pin (4), unbalanced (PLAYER 1, PLAYER 2, AUX1, RECORDER) Y: 1.0 Vp-p, 75 Ω, sync negative C: 0.3 Vp-p, 75 Ω Burst sync: 0.3 Vp-p

Video Outputs

Composite:	BNC (3), unbalanced (PGM 1, 2, MONITOR) Video: 1.0 Vp-p, 75 ohms Sync: 0.3 Vp-p Burst: 0.3 Vp-p
S-Video	4-pin (2), unbalanced Sync: 0.3 Vp-p Burst: 0.3 Vp-p
Black bust out:	BNC (4), unbalanced Sync: 0.3 Vp-p, Burst: 0.3 Vp-p

Audio

Audio Inputs (stereo):	AUDIO L/R INPUT (RCA PIN jack), (2 channels (5)) PLAYER 1 MAIN (2), SUB (2) PLAYER 2 MAIN (2), SUB (2) RECORDER (2) AUX 1 (2) AUX 2 (2) Input impedance: selectable with 600 Ω terminal switch Input level: -7.5 dBs (input impedance 47 kΩ or above, 600 kΩ switch OFF) +4dBs (input impedance 600Ω, 600 Ω switch ON)
Mic Input (monaural):	Monaural phono (1), unbalanced Input level: -60 dBs, Input impedance: more than 4.3 kΩ or above
Audio Outputs (stereo)	AUDIO L/R OUTPUT (PIN jack) (6) PGM 1(2), PGM 2(2), MONITOR (2) Output level: -7.5 dB/+4.0 dB selectable (PGM1, PGM2)

Signal Processing

Sampling rate:	Y: 910 fH (fH = 15,625 kHz) R-Y/ B-Y: 1/4 x 910 fH
Quantization:	Y/R-Y/B-Y: 8-bit
Frequency response:	0 to 5 MHz +1 dB/ -4 dB
Signal to noise ratio:	More than 53 dB
Y/C delay:	Less than 50 ns (Composite)

Recommended LANC VTR for recorder: DSR-30P

IF-FXE2

LANC Interface Box

•Converts the RS-422A protocol to LANC protocol •Supports connection between recorder LANC VTR's and FXE-100UPG*1/FXE-120P •Supports connection between player LANC VTR's and RM-450A/PVE-500

*1 FXE-100UGP is an FXE-100P which is upgraded with FXE-KIT1. Please contact your nearest Sony office.

Supplied Accessories: LANC Connecting Cord (Stereo mini-mini) (1)
AC Power Adaptor (1)
Instruction Manual (1)
List of the recommended products (1)

Optional Accessories: RS-422A Remote Control Cable: RCC-5G/10G/30G

Specifications

General

Mass:	Approx. 500 g (17.6 oz)
Dimensions:	Approx. 106 (W) × 40 (H) × 163 (D) mm (4 ¼ × 1⅝ × 6½ inches)
Power requirements:	DC 6 V
Power consumption:	Less than 3W (with the supplied AC power adaptor)
Operating temperature:	5 C to 40°C
Storage temperature:	–20 C to 60°C
Operational position:	Horizontal or vertical

Connectors

RS-422A port:	D Sub 9-pin (1)
LANC port:	Stereo mini-mini jack (1)
DC input:	6V (1)

Function Switches

Power:	Seesaw Switch (1)
Learn:	Push Switch (1) and LED (1)
Preset:	Dip Switch (4 bit)

DFS-700P

DME Switcher

•Video switcher equipped with powerful digital multi effector •Full digital component processing from input to output at 4:2:2:4 (video and key) •No need for external A/D converters •Incorporates thousands of factory preset effect patterns including non-linear digital effects •The perfect companion for Sony digital VTRs and servers •Real-time system, capable of delivering effects in an instant •Eight standard inputs include four SDIs and four analog components •Eight standard outputs include two SDIs, two analog components, two analog composites, and two Y/Cs •Can be used with Sony BVE-2000/P and PVE-500/P editors via the serial interface •Optional boards are prepared to change the types of inputs (BKDF-701/702P) •Chroma keyer, Y/U/V color correction, down stream keyer, fade-to-black, and frame memory are included •2nd channel DME board prepared as an option (BKDF-711) •3D video mapping effects board prepared as an option (BKDF-712)

Optional Accessories

BKDF-701	Digital/Analog Input Board for NTSC/PAL
BKDF-702P	Analog Composite Input Board for PAL
BKDF-711	2nd Channel DME Board
BKDF-712	3D Video Mapping Effects Board

Specifications

General

Power requirements:	AC 220/240 V, 50/60 Hz
Operating voltage:	AC 180 to 260 V, 47 to 63 Hz
Power consumption:	200 W
Operating temperature:	0 to 40 °C (32 to 104 °F)
Dimensions:	Control panel: 440 (W) × 121 (H) × 287 (D) mm 17 ¼ × 4 ¾ × 11 ¼ inches Processor unit: 440 × 132 × 520 mm 17 ¼ × 5 ¼ × 20 ½ inches
Mass:	Control panel: 3 kg, 6 lb 10 oz Processor unit: 14 kg, 30 lb 14 oz

Input Signals

VIDEO INPUTS

SDI:	BNC type x 4 270 Mb/s
Component:	BNC type x 4 (Y/R-Y/B-Y) Y: 1.0 Vp-p, 75 Ω, Sync negative R-Y/B-Y: 0.525 Vp-p, 75 Ω
DSK KEY IN:	BNC type x 2, Loop-through, 1.0 Vp-p, 75 Ω
REF VIDEO:	BNC type x 2, Loop-through connection Sync: 0.3 Vp-p Burst: 0.3 Vp-p

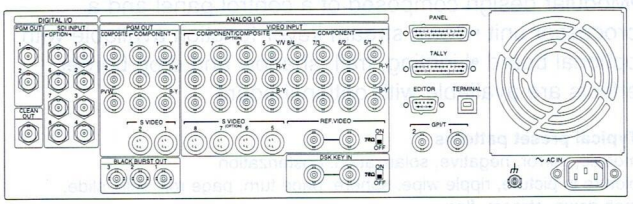
Output Signals

PGM OUT

SDI:	BNC type x 2 270 Mb/s
Component:	BNC type x 2 (Y/R-Y/B-Y) Y: 1.0 Vp-p, 75 Ω, Sync negative R-Y/B-Y: 0.525 Vp-p, 75 Ω
Composite:	BNC type x 2 Video: 1.0 Vp-p, 75 Ω, Sync negative
S-Video:	DIN type x 2 (Y/C) Y: 1.0 Vp-p, 75 Ω, Sync negative C: 0.3 Vp-p at burst, 75 Ω
CLEAN OUT:	BNC type x 1 SDI: 270 Mb/s
PREVIEW OUT:	BNC type x 1, Composite Video: 1.0 Vp-p, 75 , Sync negative
BLACK BURST OUT:	BNC type x 3 Sync: 0.3 Vp-p, 75 Ω Burst: 0.3 Vp-p, 75 Ω

Signal Processing

Sampling rate:	Y: 13.5 MHz R-Y/B-Y: 6.75 MHz
Quantization:	Y/R-Y/B-Y: 8 bits
Linearity (Composite output):	
	DG: Less than 3.5% (composite input) Less than 2% (component, S-Video input)
	DP: Less than 2.5° (composite input) Less than 1° (component, S-Video input)
Frequency response	0 to 5 MHz +0.5 dB/-1 dB



S/N	More than 50 dB (composite) More than 55 dB (component, S-Video)
Y/C delay	Less than 20 ns (component) Less than 50 ns (composite, S-Video)

Control Signals

Editor	D-sub 9 pin x 1, RS-422A
GPI/T	BNC type x 2, TTL Level
Panel	D-sub 25-pin x 1
Tally	D-sub 25-pin x 1, Relay contact outputs x 8
Terminal	USB B-type

BKDF-701

With the BKDF-701, the following 8 inputs can be added to the standard 8 inputs of the DFS-700/P, making the total number of inputs 16. During use, any 8 of the 16 inputs can be assigned to the control panel.

Input Signals

SDI:	BNC type x 4 270 Mb/s
Component:	BNC type x 4 (Y/R-Y/B-Y) Y: 1.0 Vp-p, 75 Ω, Sync negative R-Y/B-Y: 0.525 Vp-p, 75 Ω

BKDF-702P

With the BKDF-702P, the following 4 inputs (composite or S-Video) can be added to the standard 8 inputs of the DFS-700P, making the total number of inputs 12. During use, any 8 of the 12 inputs can be assigned to the control panel.

Input Signals

Composite:	BNC type x 4 Video: 1.0 Vp-p, 75 Ω, Sync negative
S-Video:	DIN type x 4 (Y/C) Y: 1.0 Vp-p, 75 Ω, Sync negative C: 0.3 Vp-p at burst, 75 Ω

DFS-500P

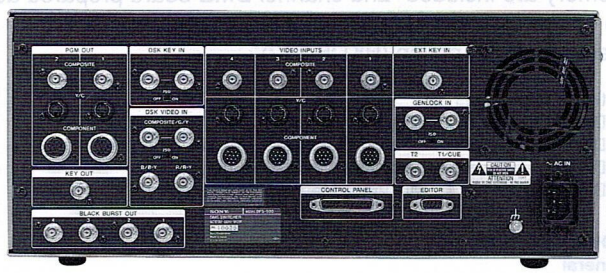
DME switcher

•Video switcher equipped with powerful digital multi effector •More than 300 factory preset effect patterns including non-linear digital effects •Up to 40 manually created effect patterns can be stored in the User Programme memory system for subsequent recall •Built-in two frame synchronizer accept non time base corrected video signals •4:1:1 digital component processing realizes high picture quality •Accepts component, composite and S-VIDEO signals to be processed simultaneously •Composed of 2 busses and 4 primary inputs •15 original background patterns •Up to 99 panel status storage in the Snap Shot memory system •Equipped with 5 individual colour matte generators •Built-in title keyer •Equipped with fader lever to allow manual picture transition •Perfect interface capabilities with BVE-3000P Series •Simple A/B roll editing system with PVE-500 •Modular design composed of a control panel and a processor unit •Down stream keyer function available with optional board •Lighting, trail, shadow and drop border effects are available with optional board

Typical preset patterns
mosaic, mirror, negative, solarization, posterization
picture in picture, ripple wipe, sphere, page turn, page roll, split, slide, melt down, stream, flag

Supplied accessories:	AC power cord 25-pin control cable, 10 m Label 1 set Operation Manual
Optional accessories:	BKDF-501P Trail and lighting board Provides drop border, shadow, trail and lighting effects. BKDF-504P DSK board Provides 8bit down stream keyer. BKDF-503 Rack mount kit Enables the control panel to be mounted onto the editing console.

Rear Panel of Processor



Specifications

General

Power requirements:	AC 220/240V, 50/60Hz
Operating voltage:	AC 180 to 264V, 48 to 63Hz
Power consumption:	140W
Operating temperature:	0 to 40°C (32 to 104°F)
Dimensions:	Control Panel: 424 (W) × 116 (H) × 344 (D) mm (16¾ × 4⅝ × 13⅝ inches) Processor Unit: 424 (W) × 177 (H) × 450 (D) mm (16¾ × 7 × 17¾ inches)
Mass:	Control Panel: 3 kg (6 lb 10 oz) Processor Unit: 17 kg (35 lb 4 oz)

Input Signals

VIDEO INPUTS 1 through 4

Composite:	BNC type (1 in each) VIDEO: 1.0Vp-p, 75Ω SYNC: 0.3Vp-p BURST: 0.3Vp-p
Y/C:	4-pin (1 in each) Y: 1.0Vp-p, 75Ω C: 0.3Vp-p, 75Ω SYNC: 0.3Vp-p
Component:	12-pin (1 in each) Y: 1.0Vp-p, 75Ω R-Y/B-Y: 0.525Vp-p, 75Ω

DSK VIDEO IN

Composite/G/Y:	BNC type
Composite:	VIDEO 1.0Vp-p, 75Ω SYNC 0.3Vp-p BURST 0.3Vp-p Y: 1.0Vp-p, 75Ω G: 0.7Vp-p, 75Ω
B/B-Y:	BNC type B-Y: 0.525Vp-p, 75Ω B: 0.7Vp-p, 75Ω
R/R-Y:	BNC type R-Y: 0.525Vp-p, 75Ω R: 0.7Vp-p, 75Ω

EXT KEY IN:	BNC type 1.0Vp-p, 75Ω
DSK KEY IN:	BNC type 1.0Vp-p, 75Ω
GEN LOCK IN:	BNC type Sync: 0.3Vp-p Burst : 0.3Vp-p

Output Signals

PGM OUT 1 and 2

Composite:	BNC type VIDEO: 1.0Vp-p, 75Ω SYNC: 0.3Vp-p BURST: 0.3Vp-p
Y/C:	4-pin Y: 1.0Vp-p, 75Ω C: 0.3Vp-p, 75Ω SYNC: 0.3Vp-p
Component:	12-pin Y: 1.0Vp-p, 75Ω R-Y/B-Y: 0.525Vp-p, 75Ω
KEY OUT:	BNC type: 1.0Vp-p, 75Ω
BLACK BURST OUT:	BNC type SYNC: 0.3Vp-p, 75Ω BURST: 0.3Vp-p, 75Ω

Signal Processing

Sampling Rate:	Y: 908fH (fH : 15.625 kHz) R-Y/B-Y: 1/4 × 908fH
Quantization:	Y/R-Y/B-Y: 8 bits
Linearity (Composite output):	DG: Less than 3.5% composite input Less than 2% component/S input DP: Less than 2.5°composite input Less than 1° component/S input
Cross talk:	Less than -50dB
Frequency response:	0 to 5 MHz +0.5dB/–1dB
S/N:	More than 51dB (composite) More than 55dB (Y/C, component)
Y/C delay:	Less than 20ns (component) Less than 50ns (composite)

Control Signals

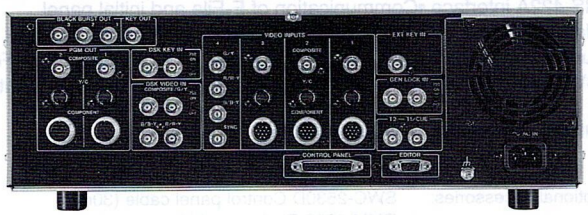
Editor:	9-pin remote
T1/T2, cue:	BNC type
Control Panel:	25-pin remote

DFS-300P

DME switcher

•Video switcher equipped with powerful digital multi effector •More than 300 factory preset effect patterns including 2D digital effects •With the optional board BKDF-301P, 3D linear and non linear factory preset effect patterns can be added •Up to 20 manually created effect patterns can be stored in the User Programme memory system for subsequent recall •With the optional board BKDF-301P, up to 40 effect patterns can be manually created and stored in the User Programme memory system •Built-in two frame synchronizers accept non time base corrected video signals •4:1:1 digital component processing realizes high picture quality •Accepts component, composite and S-video signals •Accepts RGB signals for graphic image data processing •Composed of two busses and four primary inputs • 31 original background patterns •Up to 99 snapshots can be stored in the Snap Shot memory system •Equipped with five individual colour matte generator •Built-in chromakeyer, title keyer and colour correction controller •Equipped with fader lever to allow manual picture transition •Provides simple A/B roll or two machine editing system with PVE-500 •Modular design composed of a control panel and a processor unit •8-bit Down Stream Keyer function available with optional board BKDF-504P •3D and non-linear effects are available with optional board BKDF-301P

Rear Panel of Processor



Typical preset patterns
mosaic, mirror, negative, solarization, posterization, split, slide, melt down, stream, etc

Supplied accessories:	AC power cable 25-pin control cable (10m) Operation manual
Optional accessories:	BKDF-301P 3D effect board Provides 3D effect, non-linear effect BKDF-503 Rack mount kit BKDF-504P DSK board

Specifications

General

Power requirements:	AC220V or 240V, 50/60Hz
Operating Voltage:	AC180 to 264V, 48 to 63Hz
Power consumption:	80W
Operating temperature:	0 to 40°C (32 to 104°F)
Dimensions:	Control panel: 424 (W) × 69 (H) × 287 (D) mm (16¾ × 2¾ × 11⅜ inches) Processor: 424 (W) × 132 (H) × 450 (D) mm (16¾ × 5¼ × 17¾ inches)
Mass:	Control panel: 2.3 kg (5 lb 1 oz) Processor: 13.0 kg (28 lb 10 oz)

Inputs/Outputs

Primary video inputs 1 to 3/Programme video outputs:

Composite	Connector: BNC type (× 1, each) Video: 1.0Vp-p, 75Ω Sync: 0.3Vp-p Burst: 0.3Vp-p
S-video (Y/C)	Connector: DIN-4-pin (× 1, each) Y: 1.0Vp-p, 75Ω C: 0.3Vp-p, 75Ω, burst Sync:0.3Vp-p
Component (Betacam)	Connector: 12-pin (× 1, each) Y: 1.0Vp-p, 75Ω R-Y/B-Y: 0.525Vp-p

Primary video inputs 4:

Y/G	Connector: BNC type Y: 1.0Vp-p, 75Ω G: 0.7Vp-p, 75Ω
R-Y/R	Connector: BNC type R-Y: 0.525Vp-p, 75Ω R: 0.7Vp-p, 75Ω
B-Y/B	Connector: BNC type B-Y: 0.525Vp-p, 75Ω B: 0.7Vp-p, 75Ω
Sync	Connector: BNC type 0.3 to 4.0Vp-p, 75Ω

DSK Video Inputs:

Composite/G/Y (PAL)	Connector: BNC type (× 2, loop-through) Video: 1.0Vp-p, 75Ω Sync: 0.3Vp-p Burst: 0.3Vp-p Y: 1.0Vp-p, 75Ω G: 0.7Vp-p, 75Ω
B/B-Y	Connector: BNC type B-Y: 0.525Vp-p B: 0.7Vp-p, 75Ω
R/R-Y	Connector: BNC type R-Y: 0.525Vp-p R: 0.7Vp-p, 75Ω

EXT KEY IN/DSK KEY IN/KEY OUT:
Connector: BNC type (× 1, each)
1.0Vp-p, 75Ω

GEN LOCK IN:
Connector: BNC type (× 2, loop-through)
Video: 1.0Vp-p, 75Ω
Sync: 0.3Vp-p
Burst: 0.3Vp-p

BLACK BURST OUT 1 to 3:
Connector: BNC type (× 3)
Sync: 0.3Vp-p (75Ω)
Burst: 0.3Vp-p (75Ω)

Signal Processing

Frequency response:	0 to 5MHz (Ref. 1MHz) +0.5dB/–1dB
Linearity:	DG 3.5% (composite input) 2.0% (component/S input) DP 2.5° (composite input) 1.0° (component/S input)
Crosstalk:	–50dB
S/N:	51dB (composite) 55dB (Y/C, component)
Y/C delay:	Less than 20ns (component) Less than 50ns (composite)
Sampling rate:	Y: 908fH (fH: 15.625kHz) R-Y/B-Y: 1/4 × 908fH
Quantization:	Y/R-Y/B-Y: 8 bits

Control Signals

EDITOR:	D-sub 9-pin, 9-pin remote (RS-422A)
T1/CUE IN/T2 IN:	BNC type (× 1, each), TTL level
CONTROL PANEL:	D-sub 25-pin, 25-pin rermote (RS-422A)

BVS-3200P /3200CP

Composite/Component Video Switcher

•Choice of composite or component version:
BVS-3200P Composite Video Switcher
— Accepts composite video signals
BVS-3200CP Component Video Switcher
— Accepts composite or a combination of RGB, Y/R-Y/B-Y component signals
— 12-pin Component Video Connector Inputs/Outputs for Betacam VTRs are provided
•Ten Primary inputs (including colour black and colour background) •One M/E and two KEY Busses/Processors (assignable) •KEY OVER function •Two common EXT KEY sources and FILL available for both KEYER •One EXT KEY source and FILL available for DSK •Ten basic and eight matrix wipe patterns with modifiers •Fully adjustable internal BOX MASK and EXT MASK inputs •Four COLOUR MATTE GENERATORs for BACKGROUND, EFF/BORDER (KEY 1 and KEY 2), and DSK •CHROMAKEYER (RGB or Y/R-Y/B-Y selectable) •DSK with BORDER, DROP SHADOW, OUTLINE-2H/4H selectable •FADE to BLACK (FTB) function •Auto Transition for M/E, DSK, and FTB •RS-422A interface •Communication of E-File and initial panel information with BVE-2000/9100 •DFS-500P interface •Four Black Burst Outputs •GPI Input port for M/E, DSK, FTB, and SELECT •Four (BVS-3200CP)/two (BVS-3200P) PGM Outputs and one PVW Output

Supplied accessories:	AC power cord Control panel cable (5m) Extension board
Optional accessories:	SWC-2530D Control panel cable (30m) RMM-3000 Rack mount kit

Specifications

Power requirements:	AC 100 to 240V ±10%, 50/60Hz ±10%
Power consumption:	BVS-3200P: 140W BVS-3200CP: 190W
Operating temperature:	0° to 40°C (32° to 104°F)
Storage temperature:	–20° to 60°C (–4° to 140°F)

Dimensions:	
Control panel:	Approx. 424 (W) × 111 (H) × 440 (D) mm (16¾ × 4⅜ × 17⅜ inches)
Processor unit:	BVS-3200P: Approx. 424 (W) × 132 (H) × 397 (D) mm (16¾ × 5¼ × 15¾ inches) BVS-3200CP: Approx. 424 (W) × 176 (H) × 450 (D) mm (16¾ × 7 × 17¾ inches)
Mass:	
Control panel:	Approx. 4.4 kg (9 lb 11 oz)
Processor unit:	BVS-3200P: Approx. 13 kg (28 lb 11 oz) BVS-3200CP: Approx. 18 kg (39 lb 11 oz)

*For further information, please contact the nearest Sony office.

BVS-3100P

Composite Video Switcher

•Ten Primary inputs (including colour black and colour background) •One M/E and one KEY Bus •Two EXT KEY sources and FILL available for KEYER •One EXT KEY source and FILL available for DSK •Ten basic and eight matrix wipe patterns with modifiers •Fully adjustable internal BOX MASK and EXT MASK inputs •Three COLOUR MATTE GENERATOR for BACKGROUND, EFF/BORDER, and DSK •CHROMAKEYER (RGB or Y/R-Y/B-Y selectable) •DSK with BORDER, DROP SHADOW, OUTLINE (2H/4H) selectable FADE to BLACK (FTB) function •Auto Transition for M/E, DSK, and FTB •RS-422A interface •Communication of E-File and initial panel information with BVE-910/9000/9100 •DME-450P interface •Four Black Burst Outputs •GPI Input port for M/E, DSK, FTB, and SELECT •Two PGM Outputs and one PVW Output

Supplied accessories:	AC power cord Control panel cable (5m) Extension board Operation and maintenance manual
Optional accessories:	SWC-2530D Control panel cable (30m) RMM-3000 Rack mount kit

Specifications

Power requirements:	AC 100V to 240V ±10%, 50/60Hz ±10%
Power consumption:	125W
Operating temperature:	0° to 40°C (32° to 104°F)
Storage temperature:	–20° to 60°C (–4° to 140°F)
Dimensions:	
Control panel:	Approx. 424 (W) × 111 (H) × 440 (D) mm (16¾ × 4⅜ × 17⅜ inches)
Processor unit:	Approx. 424 (W) × 132 (H) × 350 (D) mm (16¾ × 5¼ × 15¾ inches)
Mass:	
Control panel:	Approx. 4.4 kg (9 lb 11 oz)
Processor unit:	Approx. 13 kg (28 lb 11 oz)

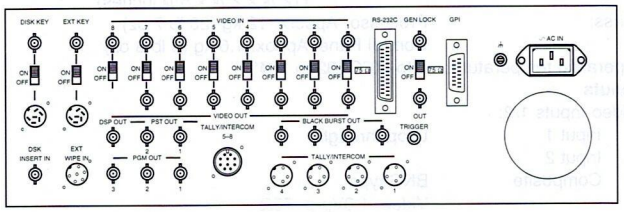
*For further information, please contact the nearest Sony office.

SEG-2550AP *E-File*

Colour special effects generator

*Production of this product has been discontinued. For details, please consult your nearest Sony office.

•The SEG-2550AP is a compact and cost effective special effects generator for program production and post production •The E-File function, which memorizes and reproduces the setting of switches and buttons and the movement of the controls, levers and sticks, is adopted •Interface capability with the BVE-900/910 automatic editing control unit and an external computer •A total of 137 versatile wipe patterns •Wipe pattern modifiers such as the positioner, the border wipe, softness border edge, echo/pairing wipe, and mosaic wipe are provided •8 video inputs and 4 bus lines (A, B, PGM and PST) for special effects (MIX, WIPE, and EXTERNAL KEY) •Built-in background colour •Built-in downstream keyer (DSK) •Independent colour generation for DSK •Shadow and edge adjustment for the key signal •Built-in sync generator •4 black burst signal outputs for synchronization of video equipment •SC and H phase indicators for easy phase adjustment •19-inch rack mountable •Torque adjustment of the effects levers



Supplied accessories:
- AC power cord
- Wipe pattern list
- CCJ connector for tally/intercom
- Designation label
- D-sub (15-pin) connector
- Transparent Designation Chips
- White Seal

Specifications

Power requirements:	AC 220 to 240V, 50/60Hz
Power consumption:	92W
Operating temperature:	0 to 40°C (32 to 104°F)
Dimensions:	Approx. 481 (W) × 155.5 (H) × 310.4 (D) mm (19 × 6⅛ × 12¼ inches)
Mass:	Approx. 14.5 kg (31 lb 15 oz)
Video signal system:	PAL
Switching system:	Vertical blanking switcher
Effects:	MIX Mixing by PGM/PST MIX lever and the EFF lever WIPE 137 wipe patterns (selectable) Wipe edge: The softness is continuously variable Border: Hue, chroma, luminance and width are continuously variable Pairing: Scanning lines 2 lines/3 lines/4 lines (selectable) Echo: Possible EXT KEY Output signal (DIN, 6-pin) HD, VD, 4Vp-p, 75Ω, unbalanced Input signal (BNC type and DIN, 6-pin) 0.7Vp-p (video), 1Vp-p (VS), 75Ω, unbalanced with 75Ω termination switch EXT KEY connector (BNC type and DIN, 6-pin) with 75Ω termination switch Slicer circuit is included (Clip level is variable) DOWNSTREAM KEYER Output signal (DIN, 6-pin) HD, VD, 4Vp-p, 75Ω, unbalanced Input signal (BNC type and DIN, 6-pin) 0.7Vp-p (video), 1Vp-p (VS), 75Ω, unbalanced DSK KEY connector: (BNC type and DIN, 6-pin) with 75Ω termination switch Shadow: Wide and narrow (selectable) Edge: Variable Colour matte: Continuously variable Chroma: Approx. 0 to 700mVp-p (variable according to the hue level) Hue: 0 to 360° Luminance (Y): Approx. 50 to 700mV continuously variable BACKGROUND COLOUR Chroma: Approx. 0 to 700mVp-p (variable according to the hue level) Hue: 0 to 360° Luminance (Y): Approx. 50 to 700mV continuously variable

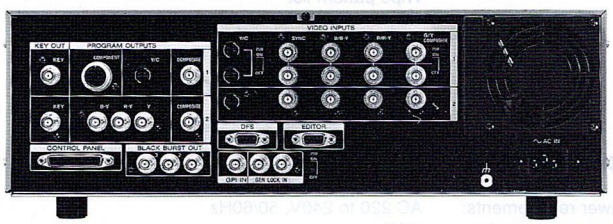
Input signal:	VIDEO IN 1 to 8 connectors (BNC type) × 8 0.7Vp-p (VB) or 1Vp-p (VBS), 75Ω, unbalanced with 75Ω termination switches (The INDICATION selector does not function with the VB input signal.) GENLOCK IN connector (BNC type) × 1 0.3V/0.3V (BS) or 1Vp-p (VBS), with 75Ω termination switch DSK INSERT IN connector (BNC type) × 1 1Vp-p (VS) EXT WIPE IN connector (DIN, 6-pin) × 1
Output signal:	VIDEO OUT 1 to 8 connector (BNC type) × 8 1Vp-p (VBS), 75Ω, unbalanced (loop-through output of the corresponding VIDEO IN connector) PGM OUT 1 to 3 connector (BNC type) × 3 1Vp-p (VBS), 75Ω, unbalanced PST OUT 1 to 2 connector (BNC type) × 2 1Vp-p (VBS), 75Ω, unbalanced GENLOCK OUT connector (BNC type) × 1 (loop-through output of GENLOCK IN connector) DSP OUT connector (BNC type) × 1 1Vp-p (VS), 75Ω, unbalanced BLACK BURST OUT 1 to 4 connector (BNC type) × 4 0.3V/0.3Vp-p (BS), 75Ω, unbalanced
Tally/Intercom:	TALLY/INTERCOM 1 to 4 connector (DIN, 4-pin) × 4 TALLY/INTERCOM 5 to 8 connector (CCJ, 10-pin) × 1 Maximum pick-up value in a relay: 24V 200mA DC
Trigger:	TRIGGER (Special minijack) × 1 TAKE function by earth (OPEN: +5V, impedance 65kΩ)
GPI:	GPI (D-sub, 15-pin) × 1 TAKE function, PGM DSK Cut-in/out by earth OPEN; ±5V, impedance 65kΩ)
RS-232C:	9600 baud (fixed), DTE (terminal), Signal level ±9V
DG:	Less than 1%
DP:	Less than 1°
Crosstalk:	Over –50dB
Frequency response:	8MHz ±0.5dB
S/N ratio:	Over –60dB

DCK-500P

Digital Chromakeyer

•8-bit Digital processiong for High Picture Quality •Auto-Chromakey •Manual Key Control Including Colour Cancel •Digital Coluor Correction •Multiple Format Inputs and Outputs •Snapshot Control from Editing Controller •Two Frame Synchronizers

Supplied accessories:	AC power cable Operation manual
Optional accessories:	Control panel adopter BKDC-501



Specifications

General

Power requirement:	AC 220/240V, 50/60Hz
Operating voltage:	AC 180 to 264V, 48 to 63Hz
Power consumption:	65W
Dimensions:	Processor 424 (W) × 132 (H) × 450 (D) mm (16 3/4 × 5 1/4 × 17 3/4 inches) Control Panel 325 (W) × 52 (H) × 132 (D) mm (12 7/8 × 2 1/8 × 5 1/4 inches)
Mass:	Processor Apporx. 12 kg (26 lb 7 oz) Control Panel Appox. 1.6 kg (3 lb 8 oz)
Operating temperature:	0 to 40°C (32 to 104°F)

Inputs

Video Inputs 1/2:

Input 1	Loop through
Input 2	
Composite	BNC type Video: 1.0Vp-p, 75Ω Sync: 0.3Vp-p Burst: 0.3Vp-p
Y/C (S-video)	DIN 4-pin Y: 1.0Vp-p, 75Ω C: 0.3Vp-p, 75Ω, burst
Component (Betacam)	BNC type Y: 1.0Vp-p, 75Ω R-Y/B-Y: 0.525Vp-p, 75Ω, 100/0/75/0
Component RGB	BNC type RGB: 0.7Vp-p, 75Ω Sync: 0.3 to 4.0Vp-p, 75Ω
GENLOCK IN	BNC type, Loop-through Video: 1.0Vp-p, 75Ω Sync: 0.3Vp-p Burst: 0.3Vp-p

Outputs

PGM OUT 1/2

Composite	BNC type Video: 1.0Vp-p, 75Ω Sync: 0.3Vp-p Burst: 0.3Vp-p
Y/C (S-video)*	DIN 4-pin Y: 1.0Vp-p, 75Ω C: 0.3Vp-p, 75Ω, burst
Component	12-pin (for OUTPUT 1), BNC type (for OUTPUT 2) Y: 1.0Vp-p, 75Ω R-Y/B-Y: 0.525Vp-p, 75Ω, 100/0/100/0
KEY OUT 1/2:	BNC tpye 1.0Vp-p, 75Ω, without sync
BLACK BURST OUT 1/2/3:	BNC type Sync: 0.3Vp-p, 75Ω, burst Burst: 0.3Vp-p, 75Ω, burst

Interface

Editor:	D-sub 9-pin, conforming to RS-422A
GPI:	BNC type, TTL level
Control panel:	D-sub 25-pin, conforming to RS-422A
DFS:	D-sub 9-pin, comforting to RS-422A

Signal Processing

Sampling Frequency:	Y: 908fH (fH: 15.625kHz) R-Y/B-Y: 1/2 × 908fH
Quantization:	Y/R-Y/B: 8 bits
Linearity (Composite output):	DP: Less than 2.5° - Composite input Less than 1.0° - Y/C, Component input DG: Less than 3.5% - Composite input Less than 2.0% - Y/C, Component input
Crosstalk:	Less than -50dB
Frequency response:	0 to 5MHz +0.5dB/-1dB
Signal to noise raito:	More than 51dB - Composite More than 55dB - Y/C, Component
Y/C delay:	Less than 20ns - Component Less than 50ns - Y/C, Composite

*OUTPUT 1 only

SECTION 4 VIDEO FILE SERVER SYSTEM

1. Multichannel video file server system
VSR-2000 106

2. Multichannel video file server system accessories 107

VSR-2000

Multi Access Vide and Audio Server

•Incorporates MPEG-2 (Main Profile @ Main Level) encoder, decoder, and storage device in a compact body •For optimum encoding, the bit rate can be selected to be 4 Mb/s, 6 Mb/s, or 8 Mb/s •Clips encoded at different bit rates can be stored in the same server •Back-to-back playout without black •Five hard disk units incorporated •Auto Data Rebuild by RAID Level 3 technology •Hot-swappable hard disks •Trimming function allows playout from specified In Points and Out Points •Shuttle function provides quick Search and Pause •Equipped with an RS-232C or RS-422A interface for control •Five slots for optional I/O boards allows flexible configuration •Optional output boards provide analog (composite, component, R/G/B) or SDI signals •The MPEG-2 file data can be transferred via Ethernet (10Base-T or 100baseT). •DVB-ASI ready

Optional accessories:

BKSR-2020	SDI MPEG Encoder Board
BKSR-2021	Analog MPEG Encoder Board
BKSR-2030	SDI MPEG Decoder Board
BKSR-2031	Analog MPEG Decoder Board
BKSR-2070	100BaseT Board
BKSH-209G	9GB HDD Unit
BKSH-218G	18 GB HDD Unit
BKSH-236G	36 GB HDD Unit
RMM-2000	Rack Mount Kit
BZSR-2000	Playout Control Software

Specifications

Input (Encoder) (1ch)

Video

Signal	(BKSR-2021):	Analog composite: BNC (x1) Analog component: BNC (x3)
	(BKSR-2020):	SDI: BNC (x1), Roop through: BNC (x1)
Encode format:		MPEG-2 MP@ML
Bit rate:		4.0/6.0/8.0 Mb/s
Image size:		ITU REC 601 NTSC: 720 pixels x 480 lines PAL: 720 pixels x 576 lines
Aspect ratio:		4:3

Audio

Signal	(BKSR-2021):	Analog (2ch): XLR 3-pin (x2) Male
	(BKSR-2020):	SDI (Embedded with video)
Encode format:		MPEG-1, Audio layer II
Bit rate:		384 Mb/s
Sampling frequency:		48 kHz

Output (Decoder) (4ch, Max. 5ch)

Video

Signal	(BKSR-2031):	Analog composite (2ch): BNC (x2) Analog component (1ch) or RGB (1ch): BNC (x3)
	(BKSR-2030):	SDI: BNC (x1)

Audio

Signal	(BKSR-2031):	Analog (2ch): XLR 3-pin (x2) Male
	(BKSR-2030):	Digital (2ch): SDI-embedded Analog (2ch): XLR 3-pin (x2) Male

Hard Disk Drive Unit

Storage Capacity

BKSH-209G:	9 GB (x5): 45 GB
BKSH-218G:	18 GB (x5): 90 GB
BKSH-236G:	36 GB (x5): 180 GB

Control Signal

REMOTE:	D-sub 9-pin RS-232C (Male)/ RS-422A (Female) switchable
VTR REMOTE:	D-sub 9-pin RS-422A (Female)

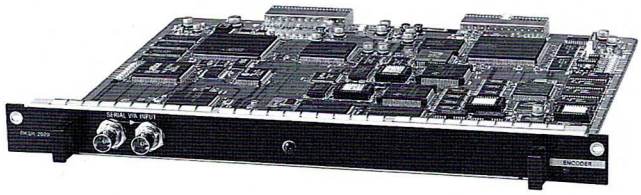
General

Power requirement:	AC100 V to 240 V, 50/60 Hz
Power consumption:	500 W
Dimension (w x h x d):	424 × 221 × 655 (mm), 16 3/4 × 8 3/4 × 25 7/8 (inches)

BKSR-2020

SDI MPEG Encoder Board

*Allows input of SDI (1ch, BNC x 1)



BKSR-2021

Analog MPEG Encoder Board

•Allows input of analog composite (1ch, BNC x 1) and component (1ch, BNC x 3)

BKSR-2030

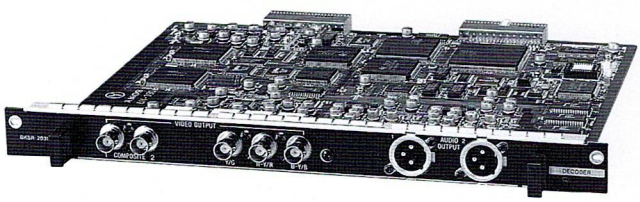
SDI MPEG Decoder Board

•Decodes MPEG-2 data and converts it to SDI (BNC x 1, and roop through)

BKSR-2031

Analog MPEG Decoder Board

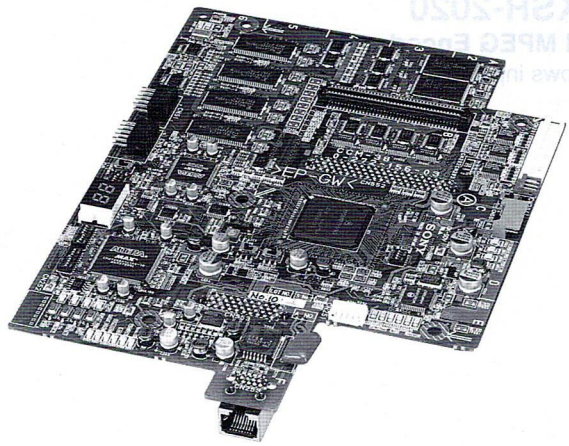
•Decodes MPEG-2 data and converts it to analog composite (2 ch, BNC x 2) and analog component or RGB signal(1 ch, BNC x 3)



BKSR-2070

100BaseT Board

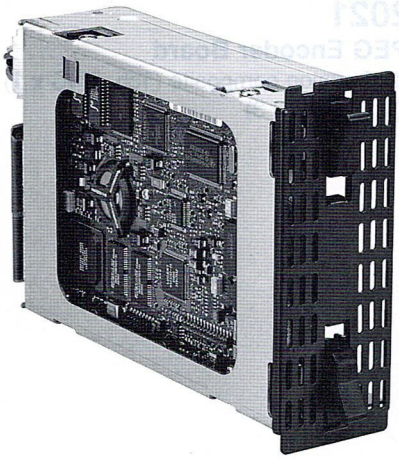
•Allows high-speed data transfer via Ethernet of 100Base-TX



BKSH-209G

9GB HDD Unit

•A hard disk drive unit with a storage capacity of 9 GB, designed to be used in the VSR-2000.



BKSH-218G

18 GB HDD Unit

•A hard disk drive unit with a storage capacity of 18 GB, designed to be used in the VSR-2000.

BKSH-236G

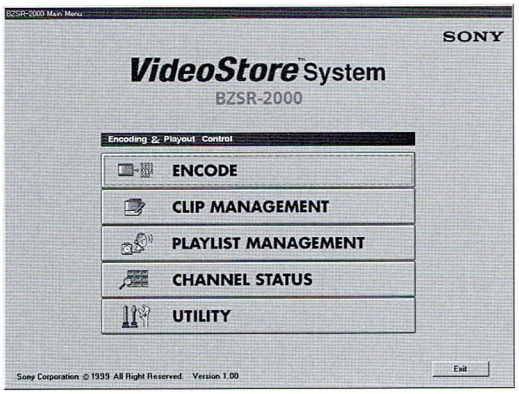
36 GB HDD Unit

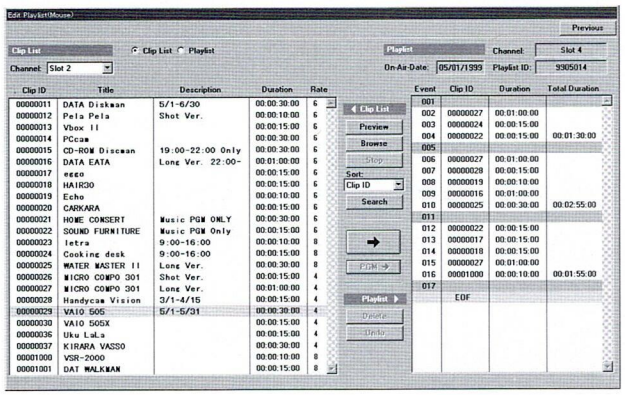
•A hard disk drive unit with a storage capacity of 36 GB, designed to be used in the VSR-2000.

BZSR-2000 (V1.0)

Playout Control Software

•Playout control software of the VSR-2000 •Incorporates all the basic functions for Encoding, Clip Management, Playlist Creation, and Olayout Monitoring of the VSR-2000





RMM-2000

Rack Mount Kit

•Rack mount kit for the VSR-2000 •Conforms to EIA standard 19-inch rack size

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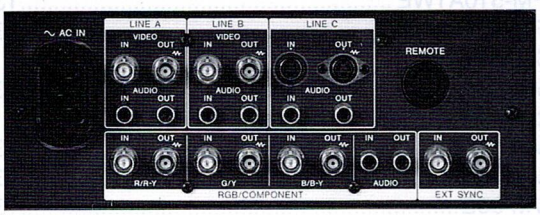
20" PVM-20M4E/20M4A*1 (PAL/NTSC/SECAM/NTSC4.43)
Colour Video Monitor

•HR Trinitron CRT assures a high resolution of 800 TV lines •Adopts EBU standard phosphor •Accepts component (Y/R-Y/B-Y), RGB, Y/C and composite signals •Beam current feedback circuit for stability in the colour balance •Optional component serial digital interface kits BKM-101C (video)/ 102 (audio) available •Switchable aspect ratio (4:3 and 16:9) •Colour temperature D65, D93 or user preset (3200K to 10000K) selectable •On-screen display for adjustment/ operation •User preset function •Underscan, Blue Only and H/V delay mode available •Auto chroma/phase setup*2 •Accepts external sync •Auto/Manual degaussing •Minimizes magnetic field emission •Mountable into an EIA standard rack with the optional SLR-103A

Supplied accessories:	20-pin remote cable Tally label AC cord AC plug holder Operation manual
Optional accessories:	BKM-101C (Component serial digital interface kit (video)) BKM-102 (Component serial digital interface kit (audio)) BKM-103 (Serial remote control kit for RS-422) SLR-103A (Slide rail) TU-1040E (Tuner unit)



Specifications

CRT	
AG pitch:	0.31 mm
Phosphor:	EBU
CRT size:	53.3 cm (20-inch) diagonally
Visible picture size:	48.3 cm (19-inch) diagonally
Resolution:	800TV lines
Colour system:	PAL, NTSC, SECAM, NTSC4.43*3
Aperture correction:	0 to +6 dB
Frequency response:	LINE: 10.0 MHz (±3 dB) *Y signal only RGB: 10.0 MHz (±3 dB)
Synchronization:	AFC time constant 1.0 mS
Normal scan:	7% over scan
Under scan:	5% under scan
Linearity:	H: less than 5% V: less than 5%
Convergence:	Centre: 0.5 mm (typical) Peripheral: 0.7 mm (typical)
Raster size stability:	H: 1.0% V: 1.5%
HV regulation:	4.0%
Colour temperature:	D65, D93, USER (3200K to 10000K)
Audio out:	0.8 W (distortion: less than 5 %)
Power consumption:	130 W (with SDI: 140 W)
AC input range:	AC 100 to 240 V (50/60 Hz)
Operation temperature:	0 to 35 °C
Storage temperature:	-10 to 40 °C
Operating humidity:	35 to 85% (no condensation)
Storage humidity:	0 to 90%
Pressure:	880 to 1060 hPa
Dimensions:	450 (W) × 458 (H) × 503 (D) mm (17¾ × 18⅛ × 19⅞ inches)
Mass:	30.0 kg (66 lb 2 oz)

Inputs / Outputs

LINE A/B*4
1.0 Vp-p ±6 dB
Loop-through BNC automatic 75 Ω termination*5

LINE C*4
Y: 1.0 Vp-p ±6 dB
C: 0.3 Vp-p ±6 dB
Loop-through Mini DIN 4-pin automatic
75 Ω termination*5

RGB / Component (selectable)*6
R/R-Y: 0.7 Vp-p ±6 dB
G: 0.7 Vp-p ±6 dB
Sync on G: 0.3 Vp-p ±6 dB
Y: 0.7 Vp-p ±6 dB
B/B-Y: 0.7 Vp-p ±6 dB
Loop-through BNC automatic 75 Ω termination*5

External Sync
4 Vp-p ±6 dB, negative
Loop-through BNC automatic 75 Ω termination*5

Regulation Compliance:
TÜV IEC-950, CE (EMC, LVD)
C-Tick (for PVM-20M4A)

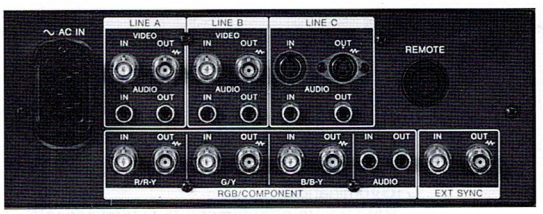
*1 PVM-20M4A is an Australian version.
*2 Phase setup is for NTSC signals only.
*3 The NTSC4.43 system refers to an NTSC colour system in which the subcarrier frequency is modified to 4.43 MHz.
*4 The Y/C input has priority over the Composite video input.
*5 75 Ω termination is automatically set to OFF when connection is made to the OUT connector.
*6 Video amplitude 100/0/100 colour bars.

20" PVM-20M2E (PAL/NTSC/SECAM/NTSC4.43)
Colour Video Monitor

•High resolution of 600 TV lines with dark tint CRT for high contrast image reproduction •Accepts component (Y/R-Y/B-Y), RGB, Y/C and composite signals •Beam current feedback circuit for stability in the colour balance •Optional component serial digital interface kits BKM-101C (video)/102 (audio) available •Switchable aspect ratio (4:3 and 16:9) •Colour temperature D65, D93 or user preset (3200K to 10000K) selectable •On-screen display for adjustment/operation •User preset function •Underscan, Blue Only and H/V delay mode available •Auto chroma/phase setup*1 •Accepts external sync •Auto/Manual degaussing •Mountable into an EIA standard rack with the optional SLR-103A

Supplied accessories: 20-pin remote cable
Tally label
AC cord
AC plug holder
Operation manual

Optional accessories: BKM-101C (Component serial digital interface kit (video))
BKM-102 (Component serial digital interface kit (audio))
BKM-103 (Serial remote control kit for RS-422)
SLR-103A (Slide rail)
TU-1040E (Tuner unit)



Specifications

CRT
- AG pitch: 0.4 mm
- Phosphor: P-22
- CRT size: 53.3 cm (20-inch) diagonally
- Visible picture size: 48.0 cm (19-inch) diagonally

Resolution: 600TV lines
Colour system: PAL, NTSC, SECAM, NTSC4.43*2
Aperture correction: 0 to +6 dB
Frequency response: LINE: 10.0 MHz (±3 dB) *Y signal only
RGB: 10.0 MHz (±3 dB)
Synchronization: AFC time constant 1.0 mS
Normal scan: 7% over scan
Under scan: 5% under scan
Linearity: H: less than 5%
V: less than 5%
Convergence: Centre: 0.6 mm (typical)
Peripheral: 1.0 mm (typical)
Raster size stability: H: 1.0%
V: 1.5%
HV regulation: 4.0%
Colour temperature: D65, D93, USER (3200K to 10000K)
Audio out: 0.8 W (distortion: less than 5 %)
Power consumption: 120 W (with SDI: 130 W)
AC input range: AC 100 to 240 V (50/60 Hz)
Operation temperature: 0 to 35 °C
Storage temperature: -10 to 40 °C
Operating humidity: 35 to 85% (no condensation)
Storage humidity: 0 to 90%
Pressure: 880 to 1060 hPa
Dimensions: 450 (W) × 458 (H) × 503 (D) mm
(17¾ × 18⅛ × 19⅞ inches)
Mass: 30.0 kg (66 lb 2 oz)

Inputs / Outputs

LINE A/B*3
1.0 Vp-p ±6 dB
Loop-through BNC automatic 75 Ω termination*4

LINE C*3
Y: 1.0 Vp-p ±6 dB
C: 0.3 Vp-p ±6 dB
Loop-through Mini DIN 4-pin automatic
75 Ω termination*4

RGB / Component (selectable)*5
R/R-Y: 0.7 Vp-p ±6 dB
G: 0.7 Vp-p ±6 dB
Sync on G: 0.3 Vp-p ±6 dB
Y: 0.7 Vp-p ±6 dB
B/B-Y: 0.7 Vp-p ±6 dB
Loop-through BNC automatic 75 Ω termination*4

External Sync
4 Vp-p ±6 dB, negative
Loop-through BNC automatic 75 Ω termination*4

Regulation Compliance:
TÜV IEC-950, CE (EMC, LVD)

*1 Phase setup is for NTSC signals only.
*2 The NTSC4.43 system refers to an NTSC colour system in which the subcarrier frequency is modified to 4.43 MHz.
*3 The Y/C input has priority over the Composite video input.
*4 75 Ω termination is automatically set to OFF when connection is made to the OUT connector.
*5 Video amplitude 100/0/100 colour bars.

20" PVM-20N6E/20N6A*1 (PAL/NTSC/SECAM/NTSC4.43)

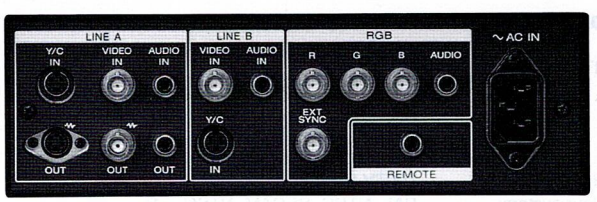
Colour Video Monitor

•Resolution of 500 TV lines •Beam current feedback circuit for stability in the colour balance •Accepts composite video, Y/C and RGB signals •Switchable aspect ratio (4:3 and 16:9) •On-screen menu for adjustment/operation •Input channel can be selected via REMOTE terminal (Phono) •Built-in speaker •One touch recall of last menu used (VOLUME, CONTRAST, BRIGHTNESS, CHROMA and PHASE) •Mountable into a 19-inch EIA standard rack with the optional SLR-103A

Optional accessories: Slide rail kit SLR-103A

Specifications

Video signal system:	CCIR 625 lines, 50 fields/EIA 525 lines, 60 fields (switching of CCIR to EIA or vice versa is automatically done)
Colour system:	PAL/NTSC/SECAM/NTSC4.43*2
Picture tube:	53 cm (20-inch), visible picture size 48.0 cm (min.) (19-inch) measured diagonally, 90° deflection
Horizontal resolution:	500 TV lines at centre
Audio power output:	Monaural, 0.8 W with built-in speaker
Power requirements:	AC 100 to 240 V, 50/60 Hz
Power consumption:	105 W
Dimensions:	449 (W) × 441 (H) × 502 (D) mm (17 11/16 × 17 3/8 × 19 3/4 inches)
Mass:	28 kg (61 lb 11 oz)
VIDEO	
LINE A*3	Loop-through BNC 1.0 Vp-p, sync negative, Automatic 75 Ω termination*4 Loop-through Mini DIN 4-pin Y (luminance): 1.0 Vp-p, sync negative, Automatic 75 Ω termination*4 C (chrominance): PAL: 0.3 Vp-p, Automatic 75 Ω termination*4 NTSC: 0.286 Vp-p, Automatic 75 Ω termination*4
LINE B*3	BNC 1.0 Vp-p, sync negative, 75 Ω Mini DIN 4-pin Y: 1.0 Vp-p, sync negative, 75 Ω C: PAL: 0.3 Vp-p, sync negative, 75 Ω NTSC: 0.286 Vp-p, 75 Ω
RGB/Sync	BNC R/G/B: 0.7 Vp-p, 75 Ω Sync on G: 0.3 Vp-p, 75 Ω Sync: 4.0 Vp-p, 75 Ω
AUDIO	
LINE A	Loop-through Phono -5 dBu, high impedance
LINE B	Phono -5 dBu, high impedance
RGB/Sync	Phono -5 dBu, high impedance



*1 PVM-20N6A is an Australian version.
*2 The NTSC4.43 system refers to an NTSC colour system in which the subcarrier frequency is modified to 4.43 MHz.
*3 The Y/C input has priority over the Composite video input.
*4 75 Ω termination is automatically set to OFF when connection is made to the OUT connector.

20" PVM-20N5E/20N5A*1 (PAL/NTSC/SECAM/NTSC4.43)
Colour Video Monitor

•Resolution of 500 TV lines •Beam current feedback circuit for stability in the colour balance •Accepts composite video and Y/C signals •On-screen menu for adjustment/operation •Built-in speaker •One touch recall of last menu used (VOLUME, CONTRAST, BRIGHTNESS, CHROMA and PHASE) •Mountable into a 19-inch EIA standard rack with the optional SLR-103A

Optional accessories: Slide rail kit SLR-103A

Specifications

Video signal system:	CCIR 625 lines, 50 fields/EIA 525 lines, 60 fields (switching of CCIR to EIA or vice versa is automatically done)
Colour system:	PAL/NTSC/SECAM/NTSC4.43*2
Picture tube:	53 cm (20-inch), visible picture size 48.0 cm (min.) (19-inch) measured diagonally, 90° deflection
Horizontal resolution:	500 TV lines at centre
Audio power output:	Monaural, 0.8 W with built-in speaker
Power requirements:	AC 100 to 240 V, 50/60 Hz
Power consumption:	105 W
Dimensions:	449 (W) × 441 (H) × 502 (D) mm (17 11/16 × 17 3/8 × 19 3/4 inches)
Mass:	28 kg (61 lb 11 oz)
VIDEO	
LINE A*3	Loop-through BNC 1.0 Vp-p, sync negative, Automatic 75 Ω termination*4 Loop-through Mini DIN 4-pin Y(luminance): 1.0 Vp-p, sync negative, Automatic 75 Ω termination*4 C(chrominance): PAL: 0.3 Vp-p, Automatic 75 Ω termination*4 NTSC: 0.286 Vp-p, Automatic 75 Ω termination*4
LINE B*3	BNC 1.0 Vp-p, sync negative, 75 Ω Mini DIN 4-pin Y: 1.0 Vp-p, sync negative, 75 Ω C: PAL: 0.3 Vp-p, sync negative, 75 Ω NTSC: 0.286 Vp-p, 75 Ω
AUDIO	
LINE A	Loop-through Phono -5 dBu, high impedance
LINE B	Phono -5 dBu, high impedance

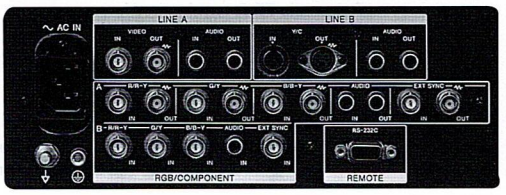
*1 PVM-20N5A is an Australian version.
*2 The NTSC4.43 system refers to an NTSC colour system in which the subcarrier frequency is modified to 4.43 MHz.
*3 The Y/C input has priority over the Composite video input.
*4 75 Ω termination is automatically set to OFF when connection is made to the OUT connector.

20" PVM-20M7MDE (PAL)

Colour Video Monitor for medical use

•HR Trinitron CRT assures a high resolution of 550 TV lines*1 at 15kHz/800 TV lines at progressive scan •Adopts EBU phosphors •100Hz double scan •Digital PAL comb filter for accurate image reproduction •Field doubling scanning to reduce flicker phenomena •Component (Y/R-Y/B-Y or RGB) input facility •On-screen display in multiple language for adjustment/operation •6500K/5600K/User preset colour temperature selectable •Accepts external sync •RS-232C serial remote control capability •Remote/tally input •Power saving function is available •Mountable into a 19-inch EIA standard rack with optional SLR-103A •White colour cabinet with side and control panel covers •Complies with IEC-601-1 safety regulation

Supplied accessories:	Side covers Control panel cover RS-232C interface manual Quick reference card AC power cord Panel hinges Instructions for use
Optional accessories:	Slide rail kit SLR-103A



Specifications

Video signal system:	CCIR 625 lines, 50 fields, interlaced CCIR 625 lines, 50 fields, non-interlaced
Colour system:	PAL
Picture tube:	53.3 cm (20-inch), HR Trinitron tube, visible picture size 48.3 cm (min.) (19-inch) measured diagonally, 90° deflection, EBU phosphors
Horizontal resolution:	PAL (15kHz): 550 TV lines*1 Progressive scan: 800 TV lines
Audio power output:	Monaural, 0.8 W with built-in speaker
Power requirements:	AC 220 to 240 V, 50/60 Hz
Power consumption:	Approx. 160 W
Dimensions:	450 (W) × 457.5 (H) × 503 (D) mm (17¾ × 18⅛ × 19⅞ inches)
Mass:	34 kg (74 lb 15 oz)

VIDEO

LINE A	Loop-through BNC 1.0 Vp-p, sync negative, Automatic 75 Ω termination*2
LINE B	Loop-through Mini DIN 4-pin Y(luminance): 1.0 Vp-p, sync negative, Automatic 75 Ω termination*2 C(chrominance): 0.3 Vp-p, Automatic 75 Ω termination*2
RGB/Component	A: Loop-through BNC R-Y/B-Y: 0.7 Vp-p, Automatic 75 Ω termination*2 Y: 1.0 Vp-p, Automatic 75 Ω termination*2 R/G/B: 0.7 Vp-p, Automatic 75 Ω termination*2 Sync on G: 0.3 Vp-p, negative, Automatic 75 Ω termination*2 Sync: 4.0 Vp-p negative, Automatic 75 Ω termination*2 B:BNC R-Y/B-Y: 0.7 Vp-p, 75 Ω Y: 1.0 Vp-p, 75 Ω R/G/B: 0.7 Vp-p, 75 Ω Sync on G: 0.3 Vp-p, negative, 75 Ω Sync: 4.0 Vp-p negative, 75 Ω

AUDIO

LINE A	Loop-through Phono -5 dBu, high impedance
LINE B	Loop-through Phono -5 dBu, high impedance
RGB/Component	A: Loop-through Phono -5 dBu, high impedance B: Phono -5 dBu, high impedance

*1 Maximum resolution of the field doubling digital device circuit.
*2 75 Ω termination is automatically set to OFF when connection is made to the OUT connector.

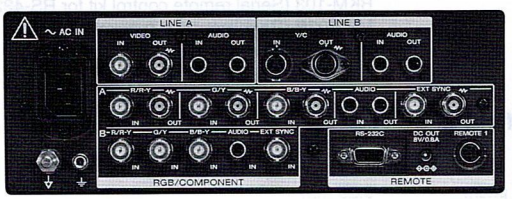
20" PVM-20M2MDE/20M2MDA*1 (PAL/NTSC)

Colour Video Monitor for medical use

•High resolution of 600 TV lines at centre •Beam current feedback circuit for stable colour reproduction •Component (Y/R-Y/B-Y or RGB) input facility •On screen display in multiple language for adjustment/operation •D65/D56/D93/ User preset colour temperature selectable •Capable of observing two RGB input signals simultaneously with the RGB split mode •20% overscan/normal scan/underscan selection •Blue only mode •Accepts external sync •RS-232C serial remote control capability •8 V DC out •Tally lamp •Mountable into a 19-inch EIA standard rack with optional SLR-103A •White colour cabinet •Complies with EN-60601-1 safety regulation

Supplied accessories: AC power cord (1)
AC plug holder (1)
Side covers (2)
Control panel cover (1)
Panel hinges (2)
Remote control connector 8-pin mini DIN (1)
Instructions for Use (1)
RS-232C protocol manual

Optional accessories: Slide rail kit SLR-103A



Specifications

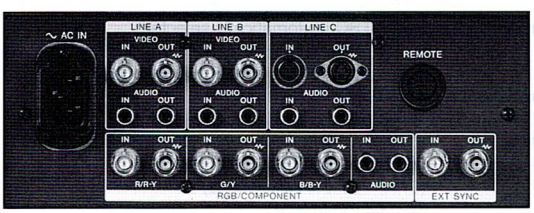
Colour system:	PAL/NTSC (automatically selected)
Picture tube:	20-inch CRT with P-22 phosphor, visible picture size 479.8 mm (19-inch measured diagonally)
Horizontal resolution:	600TV lines at centre (Video inputs)
Audio power output:	Monaural, 0.8 W with built-in speaker
Power requirements:	AC 100 to 240 V, 1.5 to 0.6 A, 50/60 Hz
Dimensions:	450 (W) × 457.5 (H) × 503 (D) mm (17¾ × 18⅛ × 19⅞ inches)
Mass:	30.0 kg (66 lb 2 oz)
VIDEO	
LINE A	Loop-through BNC 1.0 Vp-p, sync negative, Automatic 75 Ω termination*2
LINE B	Loop-through Mini DIN 4-pin Y(luminance): 1.0 Vp-p, sync negative, Automatic 75 Ω termination*2 C(chrominance): PAL: 0.3 Vp-p, Automatic 75 Ω termination*2 NTSC: 0.286 Vp-p, Automatic 75 Ω termination*2
RGB/Component	A: Loop-through BNC R-Y/B-Y: 0.7 Vp-p, Automatic 75 Ω termination*2 Y/Sync on G: 1.0 Vp-p, sync negative, Automatic 75 Ω termination*2 R/G/B: 0.7 Vp-p, Automatic 75 Ω termination*2 Sync: 4.0 Vp-p negative, Automatic 75 Ω termination*2 B:BNC R-Y/B-Y: 0.7 Vp-p, 75 Ω Y/Sync on G: 1.0 Vp-p, sync negative, 75 Ω R/G/B: 0.7 Vp-p, 75 Ω Sync: 4.0 Vp-p negative, 75 Ω
AUDIO	
LINE A	Loop-through Phono -5 dBu, high impedance
LINE B	Loop-through Phono -5 dBu, high impedance
RGB/Component	A: Loop-through Phono -5 dBu, high impedance B: Phono -5 dBu, high impedance

*1: PVM-20M2MDA is an Australian version.
*2: 75 Ω termination is automatically set to OFF when connection is made to the OUT connector.

14" PVM-14M4E/14M4A*1 (PAL/NTSC/SECAM/NTSC4.43)

Colour Video Monitor

•HR Trinitron CRT assures a high resolution of 800 TV lines •Adopts EBU standard phosphor •Accepts component (Y/R-Y/B-Y), RGB, Y/C and composite signals •Beam current feedback circuit for stability in the colour balance •Optional component serial digital interface kits BKM-101C (video)/102 (audio) available •Switchable aspect ratio (4:3 and 16:9) •Colour temperature D65, D93 or user preset (3200K to 10000K) selectable •On-screen display for adjustment/ operation •User preset function •Underscan, Blue Only and H/V delay mode available •Auto chroma/phase setup*2 •Accepts external sync •Auto/Manual degaussing •Minimizes magnetic field emission •Mountable into an EIA standard rack with the optional MB-502B and SLR-102



Supplied accessories: 20-pin remote cable
Tally label
AC cord
AC plug holder
Operation manual

Optional accessories: BKM-101C (Component serial digital interface kit (video))
BKM-102 (Component serial digital interface kit (audio))
BKM-103 (Serial remote control kit for RS-422)
MB-502B (Rack mounting bracket)
SLR-102 (Slide rail)
TU-1040E (Tuner unit)

Specifications

CRT	
AG pitch:	0.25 mm
Phosphor:	EBU
CRT size:	37.1 cm (14-inch) diagonally
Visible picture size:	33.2 cm (13-inch) diagonally
Resolution:	800 TV lines
Colour system:	PAL, NTSC, SECAM, NTSC4.43*3
Aperture correction:	0 to +6 dB
Frequency response:	LINE: 10.0 MHz (±3 dB) *Y signal only
	RGB: 10.0 MHz (±3 dB)
Synchronization:	AFC time constant 1.0 mS
Normal scan:	7% over scan
Under scan:	5% under scan
Linearity:	H: less than 4%
	V: less than 4%
Convergence:	Centre: 0.4 mm (typical)
	Peripheral: 0.5 mm (typical)
Raster size stability:	H: 1.0%
	V: 1.5%
HV regulation:	3.5%
Colour temperature:	D65, D93, USER (3200K to 10000K)
Audio out:	0.8 W (distortion: less than 5%)
Power consumption:	90 W (with SDI: 99 W)
AC input range:	AC 100 to 240 V (50/60 Hz)
Operation temperature:	0 to 35 °C
Storage temperature:	-10 to 40 °C
Operating humidity:	35 to 85% (no condensation)
Storage humidity:	0 to 90%
Pressure:	880 to 1060 hPa
Dimensions:	346 (W) × 340 (H) × 431 (D) mm
	(13⅝ × 13½ × 17 inches)
Mass:	16.7 kg (36 lb 13 oz)

Inputs / Outputs

LINE A/B*4
1.0 Vp-p ±6 dB
Loop-through BNC automatic 75 Ω termination*5

LINE C*4
Y: 1.0 Vp-p ±6 dB
C: 0.3 Vp-p ±6 dB
Loop-through Mini DIN 4-pin automatic
75 Ω termination*5

RGB / Component (selectable)*6
R/R-Y: 0.7 Vp-p ±6 dB
G: 0.7 Vp-p ±6 dB
Sync on G: 0.3 Vp-p ±6 dB
Y: 0.7 Vp-p ±6 dB
B/B-Y: 0.7 Vp-p ±6 dB
Loop-through BNC automatic 75 Ω termination*5

External Sync
4.0 Vp-p ±6 dB, negative
Loop-through BNC automatic 75 Ω termination*5

Regulation Compliance:
TÜV IEC-950, CE (EMC, LVD)
C-Tick (for PVM-14M4A)

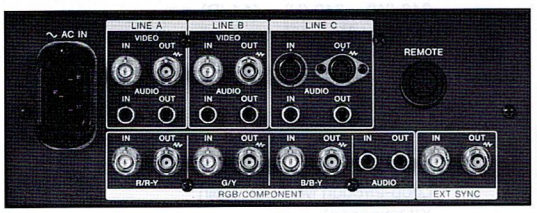
*1 PVM-14M4A is an Australian version.
*2 Phase setup is for NTSC signals only.
*3 The NTSC4.43 system refers to an NTSC colour system in which the subcarrier frequency is modified to 4.43 MHz.
*4 The Y/C input has priority over the Composite video input.
*5 75 Ω termination is automatically set to OFF when connection is made to the OUT connector.
*6 Video amplitude 100/0/100 colour bars.

14" PVM-14M2E/14M2A*1 (PAL/NTSC/SECAM/NTSC4.43)
Colour Video Monitor

•High resolution of 600 TV lines with dark tint CRT for high contrast image reproduction •Accepts component (Y/R-Y/B-Y), RGB, Y/C and composite signals •Beam current feedback circuit for stability in the colour balance •Optional component serial digital interface kits BKM-101C (video)/102 (audio) available •Switchable aspect ratio (4:3 and 16:9) •Colour temperature D65, D93 or user preset (3200K to 10000K) selectable •On-screen display for adjustment/ operation •User preset function •Underscan, Blue Only and H/V delay mode available •Auto chroma/phase setup*2 •Accepts external sync •Auto/Manual degaussing •Mountable into an EIA standard rack with the optional MB-502B and SLR-102

Supplied accessories: 20-pin remote cable
Tally label
AC cord
AC plug holder
Operation manual

Optional accessories: BKM-101C (Component serial digital interface kit (video))
BKM-102 (Component serial digital interface kit (audio))
BKM-103 (Serial remote control kit for RS-422)
MB-502B (Rack mounting bracket)
SLR-102 (Slide rail)
TU-1040E (Tuner unit)



Specifications

CRT
- AG pitch: 0.25 mm
- Phosphor: P-22
- CRT size: 37.1 cm (14-inch) diagonally

Visible picture size: 33.2 cm (13-inch) diagonally
Resolution: 600 TV lines
Colour system: PAL, NTSC, SECAM, NTSC4.43*3
Aperture correction: 0 to +6 dB
Frequency response: LINE: 10.0 MHz (±3 dB) *Y signal only
RGB: 10.0 MHz (±3 dB)
Synchronization: AFC time constant 1.0 mS
Normal scan: 7% over scan
Under scan: 5% under scan
Linearity: H: less than 4%
V: less than 4%
Convergence: Centre: 0.4 mm (typical)
Peripheral: 0.5 mm (typical)
Raster size stability: H: 1.0%
V: 1.5%
HV regulation: 3.5%
Colour temperature: D65, D93, USER (3200K to 10000K)
Audio out: 0.8 W (distortion: less than 5%)
Power consumption: 90 W (with SDI: 99 W)
AC input range: AC 100 to 240 V (50/60 Hz)
Operation temperature: 0 to 35 °C
Storage temperature: -10 to 40 °C
Operating humidity: 35 to 85% (no condensation)
Storage humidity: 0 to 90%
Pressure: 880 to 1060 hPa
Dimensions: 346 (W) × 340 (H) × 431 (D) mm
(13⅝ × 13½ × 17 inches)
Mass: 16.7 kg (36 lb 13 oz)

Inputs / Outputs

LINE A/B*4
1.0 Vp-p ±6 dB
Loop-through BNC automatic 75 Ω termination*5

LINE C*4
Y: 1.0 Vp-p ±6 dB
C: 0.3 Vp-p ±6 dB
Loop-through Mini DIN 4-pin automatic
75 Ω termination*5

RGB / Component (selectable)*6
R/R-Y: 0.7 Vp-p ±6 dB
G: 0.7 Vp-p ±6 dB
Sync on G: 0.3 Vp-p ±6 dB
Y: 0.7 Vp-p ±6 dB
B/B-Y: 0.7 Vp-p ±6 dB
Loop-through BNC automatic 75 Ω termination*5

External Sync
4.0 Vp-p ±6 dB, negative
Loop-through BNC automatic 75 Ω termination*5

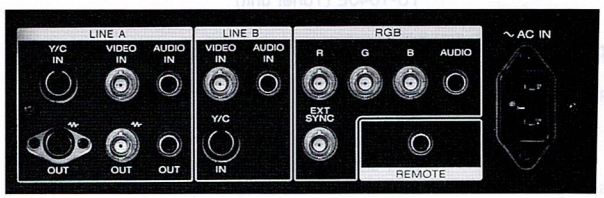
Regulation Compliance:
TÜV IEC-950, CE (EMC, LVD)
C-Tick (for PVM-14M2A)

*1 PVM-14M2A is an Australian version.
*2 Phase setup is for NTSC signals only.
*3 The NTSC4.43 system refers to an NTSC colour system in which the subcarrier frequency is modified to 4.43 MHz.
*4 The Y/C input has priority over the Composite video input.
*5 75 Ω termination is automatically set to OFF when connection is made to the OUT connector.
*6 Video amplitude 100/0/100 colour bars.

14" PVM-14N6E/14N6A*1 (PAL/NTSC/SECAM/NTSC4.43)
Colour Video Monitor

•Resolution of 500 TV lines •Beam current feedback circuit for stability in the colour balance •Accepts composite video, Y/C and RGB signals •Switchable aspect ratio (4:3 and 16:9) •On-screen menu for adjustment/operation •Input channel can be selected via REMOTE terminal (Phono) •Built-in speaker •One touch recall of last menu used (VOLUME, CONTRAST, BRIGHTNESS, CHROMA and PHASE) •Mountable into a 19-inch EIA standard rack with the optional MB-502 and SLR-102

Optional accessories: Rack mounting bracket kit MB-502B
Slide rail kit (used with the MB-502B) SLR-102



Specifications

Video signal system:	CCIR 625 lines, 50 fields/EIA 525 lines, 60 fields (switching of CCIR to EIA or vice versa is automatically done)
Colour system:	PAL/NTSC/SECAM/NTSC4.43*2
Picture tube:	37.1 cm (14-inch), visible picture size 33.2 cm (min.) (13-inch) measured diagonally, 90° deflection
Horizontal resolution:	500 TV lines at centre
Audio power output:	Monaural, 0.8 W with built-in speaker
Power requirements:	AC 100 to 240 V, 50/60 Hz
Power consumption:	80 W
Dimensions:	346 (W) × 340 (H) × 414 (D) mm (13⅝ × 13⅜ × 16⅜ inches)
Mass:	15 kg (33 lb 1 oz)

VIDEO

LINE A*3	Loop-through BNC 1.0 Vp-p, sync negative, Automatic 75 Ω termination*4 Loop-through Mini DIN 4-pin Y(luminance): 1.0 Vp-p, sync negative, Automatic 75 Ω termination*4 C(chrominance): PAL: 0.3 Vp-p, Automatic 75 Ω termination*4 NTSC: 0.286 Vp-p, Automatic 75 Ω termination*4
LINE B*3	BNC 1.0 Vp-p, sync negative, 75 Ω Mini DIN 4-pin Y: 1.0 Vp-p, sync negative, 75 Ω C: PAL: 0.3 Vp-p, sync negative, 75 Ω NTSC: 0.286 Vp-p, 75 Ω
RGB/Sync	BNC R/G/B: 0.7 Vp-p, 75 Ω Sync on G: 0.3 Vp-p, 75 Ω Sync: 4.0 Vp-p, 75 Ω

AUDIO

LINE A	Loop-through Phono -5 dBu, high impedance
LINE B	Phono -5 dBu, high impedance
RGB/Sync	Phono -5 dBu, high impedance

*1 PVM-14N6A is an Australian version.
*2 The NTSC4.43 system refers to an NTSC colour system in which the subcarrier frequency is modified to 4.43 MHz.
*3 The Y/C input has priority over the Compsite video input.
*4 75 Ω termination is automatically set to OFF when connection is made to the OUT connector.

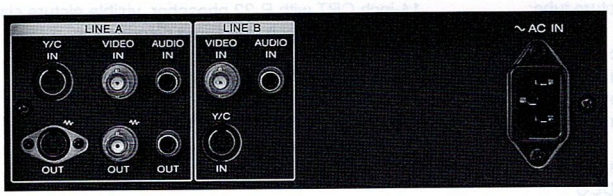
14" PVM-14N5E/14N5A*1 (PAL/NTSC/SECAM/NTSC4.43)
Colour Video Monitor

•Resolution of 500 TV lines •Beam current feedback circuit for stability in the colour balance •Accepts composite video and Y/C signals •On-screen menu for adjustment/operation •Built-in speaker •One touch recall of last menu used (VOLUME, CONTRAST, BRIGHTNESS, CHROMA and PHASE) •Mountable into a 19-inch EIA standard rack with the optional MB-502 and SLR-102

Optional accessories: Rack mounting bracket kit MB-502B
Slide rail kit (used with the MB-502B) SLR-102

Specifications

Video signal system:	CCIR 625 lines, 50 fields/EIA 525 lines, 60 fields (switching of CCIR to EIA or vice versa is automatically done)
Colour system:	PAL/NTSC/SECAM/NTSC4.43*1
Picture tube:	37.1 cm (14-inch), visible picture size 33.2 cm (min.) (13-inch) measured diagonally, 90° deflection
Horizontal resolution:	500 TV lines at centre
Audio power output:	Monaural, 0.8 W with built-in speaker
Power requirements:	AC 100 to 240 V, 50/60 Hz
Power consumption:	80 W
Dimensions:	346 (W) × 340 (H) × 414 (D) mm (13⅝ × 13⅜ × 16⅜ inches)
Mass:	15 kg (33 lb 1 oz)
VIDEO	
LINE A*3	Loop-through BNC 1.0 Vp-p, sync negative, Automatic 75 Ω termination*4 Loop-through Mini DIN 4-pin Y(luminance): 1.0 Vp-p, sync negative, Automatic 75 Ω termination*4 C(chrominance): PAL: 0.3 Vp-p, Automatic 75 Ω termination*4 NTSC: 0.286 Vp-p, Automatic 75 Ω termination*4
LINE B*3	BNC 1.0 Vp-p, sync negative, 75 Ω Mini DIN 4-pin Y: 1.0 Vp-p, sync negative, 75 Ω C: PAL: 0.3 Vp-p, sync negative, 75 Ω NTSC: 0.286 Vp-p, 75 Ω
AUDIO	
LINE A	Loop-through Phono -5 dBu, high impedance
LINE B	Phono -5 dBu, high impedance

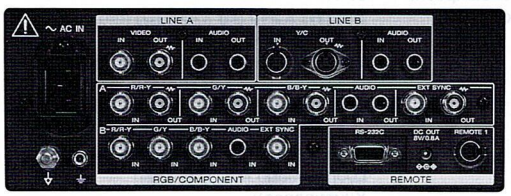


*1 PVM-14N5A is an Australian version.
*2 The NTSC4.43 system refers to an NTSC colour system in which the subcarrier frequency is modified to 4.43 MHz.
*3 The Y/C input has priority over the Composite video input.
*4 75 Ω termination is automatically set to OFF when connection is made to the OUT connector.

14" PVM-14M2MDE/14M2MDA*1 (NTSC/PAL/SECAM/NTSC4.43)

Colour Video Monitor for medical use

•High resolution of 600 TV lines at centre •Beam current feedback circuit for stable colour reproduction •Component (Y/R-Y/B-Y or RGB) input facility •On-screen display in multiple language for adjustment/operation •D65/D56/D93/ User preset colour temperature selectable •Capable of observing two RGB input signals simultaneously with the RGB split mode •20% overscan/normal scan/underscan selection •Blue only mode •Accepts external sync •RS-232C serial remote control capability •8 V DC out •Tally lamp •Mountable into a 19-inch EIA standard rack with optional MB-502B and SLR-102 •White colour cabinet •Complies with EN 60 601-1 safety regulation



Supplied accessories: AC power cord (1)
AC plug holder (1)
Side covers (2)
Control panel cover (1)
Panel hinges (2)
Remote control connector 8-pin mini DIN (1)
Instructions for Use (1)
RS-232C protocol manual (1)

Optional accessories: Mounting bracket MB-502B
Slide rail kits SLR-102

Specifications

Colour system: PAL/NTSC (automatically selected)
Picture tube: 14-inch CRT with P-22 phosphor, visible picture size 331.6 mm (13-inch measured diagonally)
Horizontal resolution: 600 TV lines at centre (Video inputs)
Audio power output: Monaural, 0.8 W with built-in speaker
Power requirements: AC 100 to 240 V 1.2 to 0.5 A, 50/60 Hz
Dimensions: 346 (W) × 340 (H) × 430.5 (D) mm (13⅝ × 13½ × 17 inches)
Mass: 16.7 kg (37 lb 8 oz)

VIDEO

LINE A: Loop-through BNC
1.0 Vp-p, sync negative, Automatic 75 Ω termination*2

LINE B: Loop-through Mini DIN 4-pin
Y(luminance): 1.0 Vp-p, sync negative, Automatic 75 Ω termination*2
C(chrominance): PAL: 0.3 Vp-p, Automatic 75 Ω termination*2
NTSC: 0.286 Vp-p, Automatic 75 Ω termination*2

RGB/Component: A: Loop-through BNC
R-Y/B-Y:
0.7 Vp-p, Automatic 75 Ω termination*2
Y/Sync on G:
1.0 Vp-p, sync negative, Automatic 75 Ω termination*2
R/G/B:
0.7 Vp-p, Automatic 75 Ω termination*2
Sync:
4.0 Vp-p negative, Automatic 75 Ω termination*2
B: BNC
R-Y/B-Y:
0.7 Vp-p, 75 Ω
Y/Sync on G:
1.0 Vp-p, sync negative, 75 Ω
R/G/B:
0.7 Vp-p, 75 Ω
Sync:
4.0 Vp-p negative, 75 Ω

AUDIO

LINE A: Loop-through Phono
-5 dBu, high impedance

LINE B: Loop-through Phono
-5 dBu, high impedance

RGB/Component: A: Loop-through Phono
-5 dBu, high impedance
B: Phono
-5 dBu, high impedance

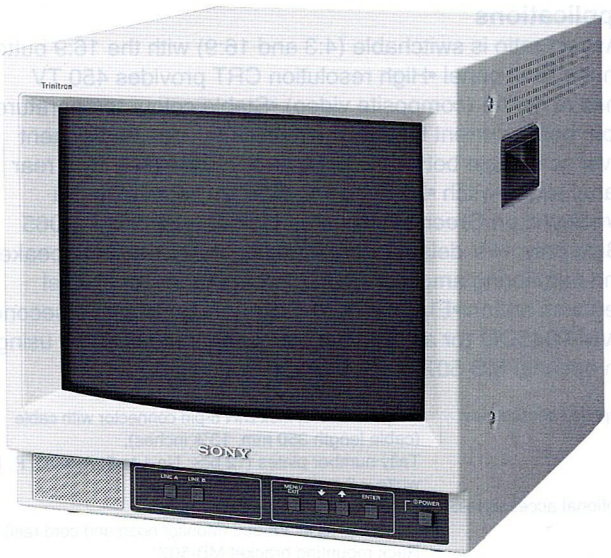
*1 PVM-14M2MDA is an Australian version.
*2 75 Ω termination is automatically set to OFF when connection is made to the OUT connector.

14" PVM-14N5MDE (PAL/NTSC/SECAM/NTSC4.43)

Colour Video Monitor for medical use

•High resolution of 500 TV lines with Sony Trinitron® CRT •Stable colour reproduction with Beam Current Feedback Circuit •Loop-through Y/C and composite video inputs •Complies with world-wide EN 60 601-1, UL 2601-1 and CSA 601.1 safety regulations •Ground earth terminal for safety •Supplied with side covers •Accepts PAL, NTSC, SECAM and NTSC4.43 signals •On-screen menu with a choice of five languages to facilitate monitor adjustment/setting •Built-in speaker for audio monitoring

Supplied accessories:	AC power cord (1) Side covers (2) Instructions for use (1)
Optional accessories:	Rack mounting bracket kit MB-502B Slide rail kit (used with the MB-502B) SLR-102



Specifications

General

System:	PAL/NTSC/SECAM/NTSC4.43 automatically selected
Power requirements:	100 to 240 V, 50/60 Hz
Power consumption:	80 W
Dimensions:	346 (W) × 340 (H) × 414 (D) mm (13⅝ × 13⅜ × 16⅝ inches)
Mass:	15 kg (33 lb 1 oz)
Operating temperature:	0 to 40 °C (32 to 104 °F)
Storage temperature:	-10 to 40 °C (14 to 104 °F)
Operating humidity:	30 to 85% (no condensation)

CRT Performance

CRT type:	370 mm (14-inch) Trinitron CRT with P-22 phosphors, visible picture size 332 mm (13-inch) (min.) measured diagonally
Resolution:	500 TV lines
Colour temperature:	D65

Picture performance

Normal scan:	7% overscan
Linearity:	H: less than 8% V: less than 7%

Input performance

Video

LINE A*1	Composite:	Loop-through BNC 1.0 Vp-p +3 dB -6 dB, sync negative automatic 75 Ω termination*2
	Y/C*1:	Loop-through 4-pin mini DIN Y: 1.0 V p-p +3 dB -6 dB, sync negative automatic 75 Ω termination*2 C: 0.3 Vp-p (PAL) or 0.286 Vp-p (NTSC), automatic 75 Ω termination*2
LINE B*1	Composite:	BNC 1.0 Vp-p +3 dB -6 dB, sync negative, 75 Ω
	Y/C*1:	4-pin mini DIN Y: 1.0 Vp-p +3 dB -6 dB, sync negative, 75 Ω C: 0.3 Vp-p (PAL) or 0.286 Vp-p (NTSC), 75 Ω
Frequency response:	6 MHz (±3 dB)	

Audio

LINE A	Loop-through phono -5 dBu, high impedance
LINE B	Phono -5 dBu, high impedance

0 dBu=0.775 V rms

*1 Y/C input has priority over composite input.
*2 75 Ω termination is automatically set to OFF when connection is made to the OUT connector.

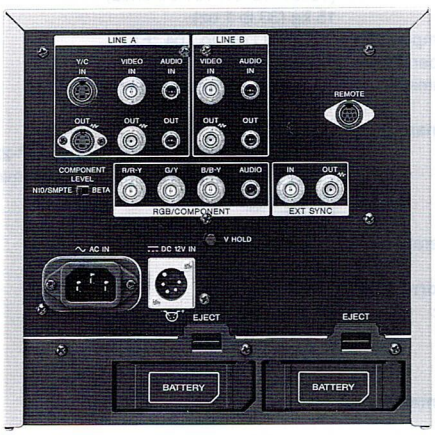
9" PVM-9045QM (PAL/NTSC/SECAM/NTSC4.43)

For picture evaluation in studio, ENG/EFP applications

•Aspect ratio is switchable (4:3 and 16:9) with the 16:9 button on the front panel •High resolution CRT provides 450 TV lines at centre (composite video) •Stable colour temperature from beam current feedback circuit •Analogue component level selectable between BETA and N10/SMPTE by a rear panel slide switch •NTSC comb filter •Accepts external sync/sync on Green •Tally input •Colour temperature D65 •Blue only, H/V delay, Underscan capability •Built-in speaker and monitoring amplifier •AC/DC operation •Front panel degauss button •EIA standard rack mountable with a second PVM-9045QM (or an optional blank panel MB-509) by using an optional MB-507 rack mounting bracket

Supplied accessories: AC power cord, Mini DIN 8-pin connector with cable (cable length 350 mm, 13⅞ inches), Tally number plates (12 pcs: No.1 to 5, A, B, C, P, R, white × 2 pcs), Operation manual

Optional accessories:
- TV tuner unit TU-1040E
- Monitor ENG kit VF-505 (Monitor hood and cord reel)
- Rack mounting bracket MB-507
- Blank panel MB-509
- Battery adaptor DC-L10
- Rechargeable lithium-ion battery BP-L60A
- Rechargeable lithium-ion battery BP-L90A
- Rechargeable battery pack NP-1B
- Rechargeable battery pack BP-90A
- Battery case (for BP-90A battery) DC-210
- Battery charger (for two BP-L60A or BP-L90A batteries) BC-L50
- Battery charger (for four BP-L60A or BP-L90A batteries) BC-L100CE
- Battery charger (for four NP-1B batteries) BC-1WDCE
- Battery charger (for four NP-1B and four BP-90A batteries) BC-410CE



Specifications

Video signal system:	CCIR 625 lines, 50 fields/EIA 525 lines, 60 fields (switching of CCIR to EIA or vice versa is automatically done)
Colour system:	PAL/NTSC/SECAM/NTSC4.43*1 (automatically selected)
Picture tube:	22 cm (9-inch) HR Trinitron tube, visible picture size 19.7 cm (8-inch) measured diagonally, 70° deflection
Horizontal resolution:	450 TV lines at centre
Audio power output:	Monaural, 0.5 W with built-in speaker
Power requirements:	AC: 100 to 240 V 0.7 to 0.4 A, 50/60 Hz DC: 12 V 3.7 A
Power consumption:	AC: 43 W DC: 40 W
Dimensions:	217 (W) × 217 (H) × 352.5 (D) mm (8⅝ × 8⅝ × 14 inches)
Mass:	8.2 kg (18 lb)
VIDEO	
LINE A	
Composite*2:	Loop-through BNC 1.0 Vp-p, sync negative, Automatic 75 Ω termination*3
Y/C*2:	Loop-through Mini DIN 4-pin Y (luminance): 1.0 Vp-p, sync negative, Automatic 75 Ω termination*3 C (chrominance): PAL: 0.3 Vp-p, Automatic 75 Ω termination*3 NTSC: 0.286 Vp-p, Automatic 75 Ω termination*3
LINE B	
Composite:	Loop-through BNC 1.0 Vp-p, sync negative, Automatic 75 Ω termination*3
RGB/Component*4	BNC
R/R-Y:	Non-composite: 0.7 Vp-p, 75 Ω
Sync on Green/G/Y:	Composite: 1.0 Vp-p, sync negative, 75 Ω Non-composite: 0.7 Vp-p, 75 Ω
B/B-Y:	Non-composite: 0.7 Vp-p, 75 Ω
External sync	Loop-through BNC 4.0 Vp-p negative, Automatic 75 Ω termination*3
Tally	Mini DIN 8-pin
DC	XLR 4-pin
AUDIO	
LINE A	Loop-through Phono -5 dBu, high impedance
LINE B	Loop-through Phono -5 dBu, high impedance
RGB/Component	Phono -5 dBu, high impedance

*1 The NTSC4.43 system refers to an NTSC colour system in which the subcarrier frequency is modified to 4.43 MHz.
*2 The Y/C input has priority over the Composite video input.
*3 75 Ω termination is automatically set to OFF when connection is made to the OUT connector.
*4 Video amplitude 100/0/100 colour bars.

9" PVM-9043MD*1 (PAL/NTSC/NTSC4.43)

Colour Video Monitor for medical use

•High resolution of 450 TV lines at centre •Beam current feedback circuit for stable colour reproduction •Colour temperature 6500K •19-inch EIA standard rack mountable with a second PVM-9043MD or the optional blank panel MB-509 by using an optional MB-507 rack mounting bracket •White colour cabinet •Complies with IEC-601-1 safety regulation

Supplied accessories:	Side covers Front panel cover Operation manual
Optional accessories:	Rack mounting bracket MB-507 Blank panel MB-509

Specifications

General

Video signal system:	CCIR 625 lines, 50 fields/EIA 525 lines, 60 fields (switching of CCIR to EIA or vice versa is automatically done)
Colour system:	PAL/NTSC/NTSC4.43*2 (automatically selected)
Picture tube:	22 cm (9-inch) HR Trinitron tube, visible picture size 19.7cm (8-inch) measured diagonally, 70° deflection
Horizontal resolution:	450 TV lines
Audio power output:	Monaural, 0.5 W with built-in speaker
Power requirements:	AC 100 to 240 V 0.7 to 0.4 A, 50/60 Hz
Power consumption:	45 W
Dimensions:	217 (W) × 217 (H) × 352.5 (D) mm (8⅝ × 8⅝ × 14 inches)
Mass:	7.8 kg (17 lb 3 oz)

VIDEO

LINE A	Composite*3: Loop-through BNC, 1.0 Vp-p, sync negative, Automatic 75 Ω termination*4 Y/C*3: Loop-through Mini DIN 4-pin Y(luminance): 1.0 Vp-p, sync negative, Automatic 75 Ω termination*4 C(chrominance): PAL: 0.3 Vp-p, Automatic 75 Ω termination*4 NTSC: 0.286 Vp-p, Automatic 75 Ω termination*4

AUDIO

LINE A	Loop-through Phono -5 dBu, high impedance

*1 Not available in some areas. For details, please contact your nearest Sony office.
*2 The NTSC4.43 system refers to an NTSC colour system in which the subcarrier frequency is modified to 4.43 MHz.
*3 The Y/C input has priority over the Composite video input.
*4 75 Ω termination is automatically set to OFF when connection is made to the OUT connector.

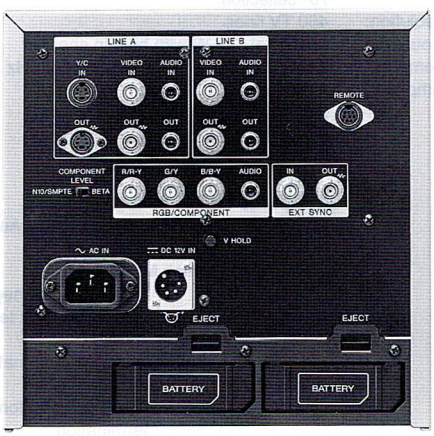
9" PVM-9042QM (PAL/NTSC/SECAM/NTSC4.43)

For multi-purpose use in various applications

•Aspect ratio is switchable (4:3 and 16:9) with the 16:9 button on the front panel •Stable colour temperature from beam current feedback circuit •Analogue component level selectable between BETA and N10/SMPTE by a rear panel slide switch •NTSC comb filter •Accepts external sync/sync on Green •Tally input •Colour temperature D65 •Blue only, H/V delay, Underscan capability •Built-in speaker and monitoring amplifier •AC/DC operation •Front panel degauss button •EIA standard rack mountable with a second PVM-9042QM (or an optional blank panel MB-509) by using an optional MB-507 rack mounting bracket

Supplied accessories: AC power cord, Mini DIN 8-pin connector with cable (cable length 350 mm, 13⅞ inches), Tally number plates (12 pcs: No.1 to 5, A, B, C, P, R, white × 2 pcs), Operation manual

Optional accessories:
- TV tuner unit TU-1040E
- Monitor ENG kit VF-505 (Monitor hood and cord reel)
- Rack mounting bracket MB-507
- Blank panel MB-509
- Battery adaptor DC-L10
- Rechargeable lithium-ion battery BP-L60A
- Rechargeable lithium-ion battery BP-L90A
- Rechargeable battery pack NP-1B
- Rechargeable battery pack BP-90A
- Battery case (for BP-90A battery) DC-210
- Battery charger (for two BP-L60A or BP-L90A batteries) BC-L50
- Battery charger (for four BP-L60A or BP-L90A batteries) BC-L100CE
- Battery charger (for four NP-1B batteries) BC-1WDCE
- Battery charger (for four NP-1B and four BP-90A batteries) BC-410CE



Specifications

Video signal system: CCIR 625 lines, 50 fields/EIA 525 lines, 60 fields (switching of CCIR to EIA or vice versa is automatically done)
Colour system: PAL/NTSC/SECAM/NTSC4.43*1 (automatically selected)
Picture tube: 22 cm (9-inch) Trinitron tube, visible picture size 19.7 cm (8-inch) measured diagonally, 70° deflection
Horizontal resolution: 250 TV lines at centre
Audio power output: Monaural, 0.5 W with built-in speaker
Power requirements: AC: 100 to 240 V 0.7 to 0.4 A, 50/60 Hz
DC: 12 V 3.7 A
Power consumption: AC: 43 W
DC: 40 W
Dimensions: 217 (W) × 217 (H) × 352.5 (D) mm (8⅝ × 8⅝ × 14 inches)
Mass: 8.2 kg (18 lb)

VIDEO

LINE A
- Composite*2: Loop-through BNC, 1.0 Vp-p, sync negative, Automatic 75 Ω termination*3
- Y/C*2: Loop-through Mini DIN 4-pin
  Y(luminance): 1.0 Vp-p, sync negative, Automatic 75 Ω termination*3
  C(chrominance):
  PAL: 0.3 Vp-p, Automatic 75 Ω termination*3
  NTSC: 0.286 Vp-p, Automatic 75 Ω termination*3

LINE B
- Composite: Loop-through BNC, 1.0 Vp-p, sync negative, Automatic 75 Ω termination*3

RGB/Component*4: BNC
- R/R-Y: Non-composite: 0.7 Vp-p, 75 Ω
- Sync on Green/G/Y: Composite: 1.0 Vp-p, sync negative, 75 Ω
  Non-composite: 0.7 Vp-p, 75 Ω
- B/B-Y: Non-composite: 0.7 Vp-p, 75 Ω

External sync: Loop-through BNC, 4.0 Vp-p negative, Automatic 75 Ω termination*3
Tally: Mini DIN 8-pin
DC INPUT: XLR 4-pin

AUDIO

LINE A: Loop-through Phono, -5 dBu, high impedance
LINE B: Loop-through Phono, -5 dBu, high impedance
RGB/Component: Phono, -5 dBu, high impedance

*1 The NTSC4.43 system refers to an NTSC colour system in which the subcarrier frequency is modified to 4.43 MHz.
*2 The Y/C input has priority over the Composite video input.
*3 75 Ω termination is automatically set to OFF when connection is made to the OUT connector.
*4 Video amplitude 100/0/100 colour bars.

9" PVM-9040ME (PAL/SECAM)

Basic monitoring device

•Employs a beam current feedback circuit for stability in the colour balance •Composite video or Y/C input with audio input •Built-in speaker •19-inch EIA standard rack mountable with a second PVM-9040ME or the optional blank panel MB-509 by using the optional MB-507 rack mounting bracket

Supplied accessories:	AC power cord, Operation manual
Optional accessories:	TV tuner unit TU-1040E Rack mounting bracket MB-507 Blank panel MB-509 Composite digital monitor interface DMIF-2000

Specifications

Video signal system:	CCIR 625 lines, 50 fields
Colour system:	PAL/SECAM (automatically selected)
Picture tube:	22 cm (9-inch) Trinitron tube, visible picture size 19.7 cm (8-inch) measured diagonally, 70° deflection
Horizontal resolution:	250 TV lines at centre
Audio power output:	Monaural, 0.5 W with built-in speaker
Power requirements:	AC: 100 to 240 V 0.7 to 0.4 A, 50/60 Hz
Power consumption:	39 W
Dimensions:	217 (W) × 217 (H) × 352.5 (D) mm (8⅝ × 8⅝ × 14 inches)
Mass:	7.5 kg (16 lb 9.5 oz)

VIDEO

LINE

Composite*1:	Loop-through BNC 1.0 Vp-p, sync negative, Automatic 75 Ω termination*2
Y/C*1:	Loop-through Mini DIN 4-pin Y(luminance): 1.0 Vp-p, sync negative, Automatic 75 Ω termination*2 C(chrominance): 0.3 Vp-p, Automatic 75 Ω termination*2

AUDIO

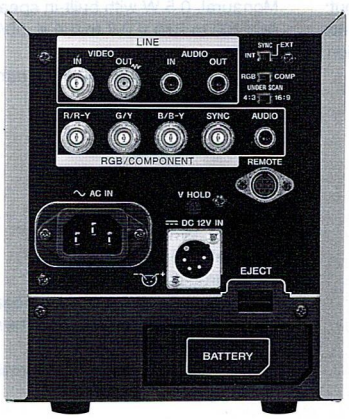
LINE	Loop-through Phono -5 dBu, high impedance

*1 The Y/C input has priority over the Composite video input.
*2 75 Ω termination is automatically set to OFF when connection is made to the OUT connector.

6" PVM-6041QM (PAL/NTSC/SECAM/NTSC4.43)

Suitable for picture confirmation in ENG/EFP application and multiple camera monitoring

•Employs a beam current feedback circuit for stability in the colour balance •Two inputs: Component (Y/R-Y/B-Y or RGB) and Composite video •Accepts external sync and sync on Green •Blue only, H/V delay, Underscan capability •AC/DC operation capability using one NP-1B battery pack or a BP-90A with DC-210 adaptor •Wired remote control capability •Built-in speaker •Tally input •19-inch EIA standard rack mountable with another two units of PVM-6041QM or two optional blank panel MB-508 by using the optional MB-507 rack mounting bracket



Supplied accessories: AC power cord, Mini DIN 8-pin connector with cable (cable length 350 mm, 13⅞ inches), Operation manual

Optional accessories:
- TV tuner unit TU-1040E
- Monitor ENG kit VF-504 (Monitor hood and cord reel)
- Rack mounting bracket MB-507
- Blank panel MB-508
- Battery adaptor DC-L10
- Rechargeable lithium-ion battery BP-L60A
- Rechargeable lithium-ion battery BP-L90A
- Rechargeable battery pack NP-1B
- Rechargeable battery pack BP-90A
- Battery case (for BP-90A battery) DC-210
- Battery charger (for two BP-L60A or BP-L90A batteries) BC-L50
- Battery charger (for four BP-L60A or BP-L90A batteries) BC-L100CE
- Battery charger (for four NP-1B batteries) BC-1WDCE
- Battery charger (for four NP-1B and four BP-90A batteries) BC-410CE

Specifications

Video signal system:	CCIR 625 lines, 50 fields/EIA 525 lines, 60 fields (switching of CCIR to EIA or vice versa is automatically done)
Colour system:	PAL/NTSC/SECAM/NTSC4.43*1 (automatically selected)
Picture tube:	14.7 cm (6-inch) Trinitron tube, visible picture size 13 cm (5-inch) measured diagonally, 70° deflection
Horizontal resolution:	250 TV lines at centre
Audio power output:	Monaural, 0.5 W with built-in speaker
Power requirements:	AC: 100 to 240 V 0.7 to 0.4 A, 50/60 Hz DC: 12 V 3.2 A
Power consumption:	AC: 40 W DC: 40 W
Dimensions:	146 (W) × 173 (H) × 352.5 (D) mm (5¾ × 6⅞ × 14 inches)
Mass:	5.5 kg (12 lb 2 oz)
VIDEO	
LINE	Loop-through BNC 1.0 Vp-p, sync negative, Automatic 75 Ω termination*2
RGB/Component*3	BNC
R/R-Y:	Non-composite:0.7 Vp-p, 75 Ω
G/Sync on Green/Y:	Composite:1.0 Vp-p, sync negative, 75 Ω Non-composite:0.7 Vp-p, 75 Ω
B/B-Y:	Non-composite:0.7 Vp-p, 75 Ω
External sync	BNC 4.0 Vp-p negative, 75 Ω
AUDIO	
LINE	Loop-through Phono -5 dBu, high impedance
RGB/Component	Phono -5 dBu, high impedance

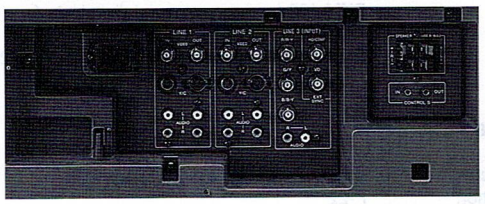
*1 The NTSC4.43 system refers to an NTSC colour system in which the subcarrier frequency is modified to 4.43 MHz.
*2 75 Ω termination is automatically set to OFF when connection is made to the OUT connector.
*3 RGB and Y/R-Y/B-Y input is switch selectable.

29" PVM-2950QM (PAL/NTSC/SECAM/NTSC4.43)

Cubic Style Monitor

•Switchable aspect ratio(4:3 and 16:9) •A high resolution of 600 TV lines •Beam current feedback circuit for stability in the colour balace •On-screen menu for adjustment/operation •Accepts Composite video, Y/C, Component(Y/R-Y/B-Y or RGB) signals •Supplied wireless remote control unit RM-854 controls all monitor functions

Supplied accessories: AC power cord, AC plug holder, Remote controller RM-854, Battery for RM-854, Operation manual
Optional accessories: Speaker system SS-X7A
TV tuner unit TU-1040E



Specifications

Video signal system:	CCIR 625 lines, 50 fields/EIA 525 lines, 60 fields (switching of CCIR to EIA or vice versa is automatically done)
Colour system:	PAL/NTSC/SECAM/NTSC4.43*1 (automatically selected)
Picture tube:	72.9 cm (29-inch), Super Trinitron tube, visible picture size 67.5 cm (27-inch) measured diagonally, 110° deflection
Horizontal resolution:	600 TV lines
Audio power output:	7 W+7 W, 8 to 16 Ω
Power requirements:	AC 220 to 240 V, 50/60 Hz
Power consumption:	165 W (typical)
Dimensions:	687 (W) × 538 (H) × 529 (D) mm (27⅛ × 21¼ × 20⅞ inches)
Mass:	52 kg (114 lb 10 oz)
VIDEO	
LINE 1/2	
Composite*2:	Loop-through BNC 1.0 Vp-p, sync negative, Automatic 75 Ω termination*3
Y/C*2:	Loop-through Mini DIN 4-pin Y(luminance): 1.0 Vp-p, sync negative, Automatic 75 Ω termination*3 C(chrominance): PAL:0.3 Vp-p, Automatic 75 Ω termination*3 NTSC:0.286 Vp-p, Automatic 75 Ω termination*3
LINE 3	
RGB/Component:	BNC
R/R-Y:	Non-composite: 0.7 Vp-p, 75 Ω
Sync on G/G/Y:	Composite: 1.0 Vp-p, sync negative, 75 Ω Non-composite: 0.7 Vp-p, 75 Ω
B/B-Y:	Non-composite: 0.7 Vp-p, 75 Ω
Sync:	Composite sync: BNC Analogue level: 0.5 to 5.0 Vp-p, high impedance, positive/negative TTL level: positive/negative HD/VD separate: BNC Analogue level: 0.5 to 5.0 Vp-p, high impedance, positive/negative TTL level: positive/negative
AUDIO	
LINE 1/2	Loop-through Phono (×2) -5 dBu, high impedance
LINE 3	Phono (×2) -5 dBu, high impedance

RM-854

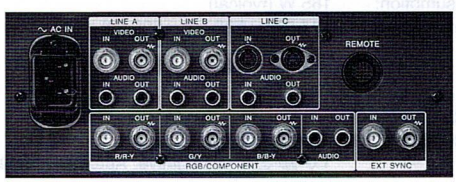
*1 The NTSC4.43 system refers to an NTSC colour system in which the subcarrier frequency is modified to 4.43 MHz.
*2 Y/C input has priority over the Composite video input.
*3 75 Ω termination is automatically set to OFF when connection is made to the OUT connector.

20" PVM-20S1WE/20S1WA*1 (PAL/NTSC/SECAM/NTSC4.43)

Colour Video Monitor with 16:9 aspect ratio

•16:9 aspect ratio CRT with dark panel for high contrast image reproduction •Accepts component (Y/R-Y/B-Y), RGB, Y/C and composite signals •Beam current feedback circuit for stability in the colour balance •Optional component serial digital interface kits BKM-101C (video) / 102 (audio) available •Switchable aspect ratio (4:3 and 16:9) •Colour temperature D65, D93 or user preset (3200K to 10000K) selectable •On-screen display for adjustment/operation •User preset function •Underscan, Blue Only and H/V delay mode available •Auto chroma/phase setup*2 •Accepts external sync •Digital 3-line comb filter •Auto/Manual degaussing •Mountable into an EIA standard rack with the optional SLR-103 slide rail kit

Supplied accessories:	20-pin remote cable Tally label AC power cord AC plug holder Blind panel kit for SLR-103A*3 Operation manual
Optional accessories:	BKM-101C (component serial digital interface kit (video)) BKM-102 (component serial digital interface kit (audio)) BKM-103 (serial remote control kit for RS-422A) SLR-103A (slide rail)



Specifications

CRT:	
AG pitch:	Variable pitch 0.65 to 0.75 mm
Phosphor:	P-22
Visible screen size:	46 cm (18-inch) diagonally
Resolution:	300 TV lines
Colour system:	PAL, NTSC, SECAM, NTSC4.43*4
Aperture correction:	0 to +6 dB
Frequency response:	
LINE:	6 MHz (±3 dB) *Y signal only
RGB:	6 MHz (±3 dB)
Synchronization:	AFC time constant 1.0 mS
Normal scan:	7% over scan
Under scan:	5% under scan
Linearity:	
H:	less than 8% (typical)
V:	less than 7% (typical)
Convergence:	
Centre:	0.6 mm (typical)
Peripheral:	1.2 mm (typical)
Raster size stability:	
H:	1.0%
V:	1.5%
HV regulation:	4.0%
Colour temperature:	D65, D93, USER (3200K to 10000K)
Speaker out:	0.8 W (distortion: less than 5%)
Power consumption:	100 W (with SDI: 110 W)
AC input range:	AC 220 to 240 V (50/60 Hz)
Operation temperature:	0 to 35 °C
Storage temperature:	-10 to 40 °C
Operation humidity:	35 to 85% (no condensation)
Storage humidity:	0 to 90%
Dimensions:	482 (W) × 397 (H) × 503 (D) mm 19 × 15¾ × 19⅞ inches
Mass:	Approx. 25 kg (55 lb 2 oz) {including SDI : 26 kg (57 lb 5 oz)}

Inputs/Outputs

Line A/B*5:	1.0 Vp-p±6 dB Loop-through BNC automatic 75 Ω termination*6
Line C*5:	
Y:	1.0 Vp-p ±6 dB
C(NTSC):	0.286 Vp-p ±6 dB Loop-through Mini DIN 4-pin automatic 75 Ω termination*6
RGB/Component (selectable):*7	
R/R-Y:	0.7 Vp-p ±6 dB
G:	0.7 Vp-p ±6 dB
Sync on G:	0.3 Vp-p ±6 dB
Y:	1.0 Vp-p ±6 dB
B/B-Y:	0.7 Vp-p ±6 dB Loop-through BNC automatic 75 Ω termination*6
External sync:	4.0 Vp-p ±6 dB, negative Loop-through BNC automatic 75 Ω termination*6

Regulation Compliance:

PVM-20A1WE	UL 1950, DHHS, FCC Class-A, CSA 22.2, No. 950, DNHW, IC Class-A, EN60950, EN55022 Class-B, EN50082-1, EN60555-2
PVM-20S1WA:	AS/NZS 3548, AS/NZS 4252.1

*1 PVM-20S1WA is an Australian version.
*2 Phase setup is for NTSC signals only.
*3 Because the bezel protrudes from the rack when you mount the PVM-20S1WE/20S1WA, you cannot completely insert the SLR-103A. The blind panel kit is supplied to cover the exposed part of the slide rail.
*4 The NTSC4.43 system refers to an NTSC colour system in which the subcarrier frequency is modified to 4.43 MHz.
*5 The Y/C input has priority over the Composite video input.
*6 75 Ω termination is automatically set to OFF when connection is made to the OUT connector.
*7 Video amplitude 100/0/100 colour bars.

29" PGM-200R1E/200R1A*

Colour Graphic Monitor

•Cubic style colour graphic monitor •Accepts VGA signals (fH 31.5 kHz, fV 60 Hz/70 Hz) •The optional BKM-201SC Scan Converter Adaptor enables the monitor to serve as a multi-frequency monitor (capture range: fH 15.6 kHz to 85 kHz, fV 50 Hz to 120 Hz) •Active loop-through output •ID remote control •Wide range power supply (switchable between 100 to 120 V and 220 to 240 V AC)

Supplied accessories: AC power cord (1)
AC plug holder (1)
Remote controller RM-921 with two AA (R6) batteries (1)
Ferrite core (2)
Operating instructions (1)

Optional accessories: Scan converter adaptor BKM-201SC
Cooling fan unit BKM-202FN
Speaker system SS-X7A
TV tuner TU-1040E

Specifications

Picture performance

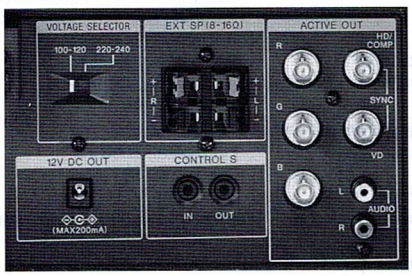
CRT: 29-inch Super Trinitron tube, visible picture size 675 mm (27-inch viewable area measured diagonally), AG pitch (variable) 0.70 to 0.85 mm, Anti-glare and anti-static
Resolution: 640 × 480 dots max.
Scanning frequency: fH 31.5 kHz fV 60/70 Hz, fH 31.25 kHz fV 50 Hz
Frequency response: 16 MHz (–3 dB)
Line pull range: Horizontal: ±500 Hz
Vertical: -8 Hz
Zooming: Within 5%
Colour temperature: 9300K (standard)/6500K switchable

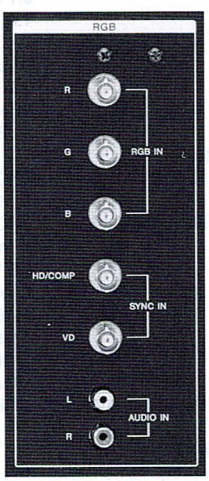
Input/Output

Input R, G, B: BNC
0.714 Vp-p / non-composite, 75 Ω terminated
1.0 Vp-p / composite, 75 Ω terminated
HD/COMP, VD: BNC
H (or composite) sync, V sync
1.0 to 5.0 Vp-p, high impedance
AUDIO (L, R): Phono
500 mV rms, high impedance

Output R, G, B: BNC
0.714 Vp-p / non-composite, 75 Ω terminated
HD/COMP, VD: BNC
H (or composite) sync, V sync
5.0 Vp-p, high impedance
AUDIO (L, R): Phono
Audio gain ±1 dB typical
Total harmonic distortion less than 1%
500 mV rms
SP OUT: 8 to 16 Ω, 7 W + 7 W (at 8 Ω)

12V DC OUT (for BKM-202FN):
12 V DC 200 mA max.
Control S IN/OUT: Mini jack, 5.0 Vp-p





General

Power requirements: 220 V to 240 V AC selectable 50/60 Hz
Power consumption: Max. 183 W
(with BKM-201SC: max. 208.5 W)
Operating temperature: 0°C to 35°C (32°F to 95°F)
Dimensions: 687 (W) × 538 (H) × 520 (D) mm
(27⅛ × 21¼ × 20½ inches)
Mass: Approx. 55 kg (121 lb 4 oz)

Regulation Compliance:

UL 1950, CSA 22.2 No.950, TÜV EN-60950 (CE LVD), FCC Class A, IC Class A, CE EN55022 Class-B/EN50082-1/EN60555-2, VCCI-1, DHHS, DNHW, PTB

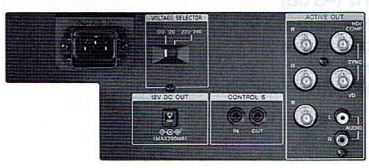
*PGM-200R1A is an Australian version

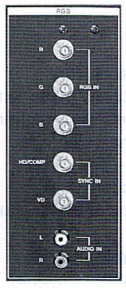
29" PGM-200R2E

Colour Graphic Monitor

•Capable of displaying VGA graphics (fH 31.5 kHz, fV 60 Hz), line-doubled NTSC signals (fH 31.5 kHz, fV 60 Hz) and line-doubled PAL signals (fH 31.25 kHz, fV 50 Hz) •Optional Sony BKM-202FN Cooling Fan can be installed to provide extra ventilation for enclosed areas such as custom-built cabinets (note: Call your authorized Sony dealer for installation details) •Optional Sony RM-921 Remote Controller •Wide range power supply switchable between 100 to 120 V and 220 to 240 V AC

Supplied accessories:	AC power cord (1) AC plug holder (1) Ferrite core (2) Operating instructions (1)
Optional accessories:	RM-921 Remote Controller BKM-202FN Cooling Fan Unit





Specifications

Picture performance

CRT:	29-inch Super Trinitron tube, visible picture size 675 mm (27-inch viewable area, measured diagonally), AG pitch (variable) 0.70 to 0.85 mm, Anti-glare and anti-static
Resolution:	640 × 480 dots max.
Scanning frequency:	fH: 31.5 kHz fV: 60 Hz fH: 31.25 kHz fV: 50 Hz
Frequency response:	16 MHz (-3 dB)
Line pull range:	Horizontal: ±500 Hz Vertical: -8 Hz
Zooming:	Within 5%
Colour temperature:	9300K (standard)/6500K switchable

Input/Output

Input:

R, G, B:	BNC 0.714 Vp-p/non-composite, 75 Ω terminated 1.0 Vp-p/composite, 75 Ω terminated
HD/COMP, VD:	BNC H (or composite) sync, V sync 5.0 Vp-p, high impedance
Audio (L, R):	Phono 5 dBu, high impedance

Output:

R, G, B:	BNC 0.714 Vp-p/non-composite, 75 Ω terminated
HD/COMP, VD:	BNC H (or composite) sync, V sync 5.0 Vp-p, high impedance
Audio (L, R):	Phono Audio gain ±1 dB typical Total harmonic distortion less than 1%, 5 dBu
12V DC OUT (for BKM-202FN):	12 V DC 200 mA max.
Control S IN/OUT:	Mini jack

General

Power requirements:	100 V to 120 V/220 V to 240 V AC selectable, 50/60 Hz (Preset: 220 to 240 V)
Power consumption:	max. 183 W
Operating temperature:	0 to 35 °C (32 to 95 °F)
Dimensions:	687 (W) × 538 (H) × 520 (D) mm (27⅛ × 21¼ × 20½ inches)
Mass:	Approx. 51.5 kg (113 lb 8 oz)

Regulation Compliance:

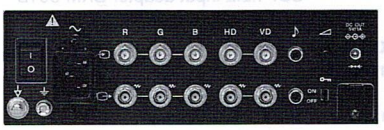
UL1950, CSA 22.2 No.950, EN60950,
FCC Class-A, IC Class-A, EN55022 Class-B,
EN50082-1, EN60555-2, VCCI, DHHS, DNHW, PTB

PGM-100P1MD

Colour Graphic Monitor for medical use

•High contrast Anti-Reflection Coated Trinitron CRT •Light output of 160 nits •Multiscan capability: fH 30 to 65 kHz, fV: 50 to 120 Hz, 640 × 480 to 1280 × 1024 dots •BNC input with loop-through output •Built-in speaker •DC 5 V/1 A output •World-wide medical safety approval for professional medical use •Control inhibit function prevents the inadvertent touching of control panel •Fluid resistant cabinet and flush surface using a sheet-key •GCX mount or optional swivel stand installation capability •Power saving function

Supplied accessories:	AC power cord (1) Instruction manual
Optional accessories:	Monitor stand SU-556 Signal cable SMF-400 (D-sub 15-pin to 5 BNC cable)



Specifications

General

Scanning frequency:	VGA to SVGA Horizontal: 30 to 65 kHz Vertical: 50 to 120 Hz
Power requirements:	100 to 120 V, 220 to 240 V, 50/60 Hz
Power consumption:	130 W (max.), 7 W (standby)
Dimensions:	368 (W) × 343 (H) × 391 (D) mm (14½ × 13⅝ × 15½ inches)
Mass:	Approx. 15 kg (33 lb 1 oz)

CRT performance

CRT type:	37 cm (15-inch) Trinitron CRT with P-22 phosphors, visible picture size 35.4 cm (14-inch) (min.) measured diagonally, AG pitch 0.25 mm, 90° deflection
Resolution:	640 × 480 to 1280 × 1024 dots
Colour temperature:	9300K/5000K/USER

Input performance

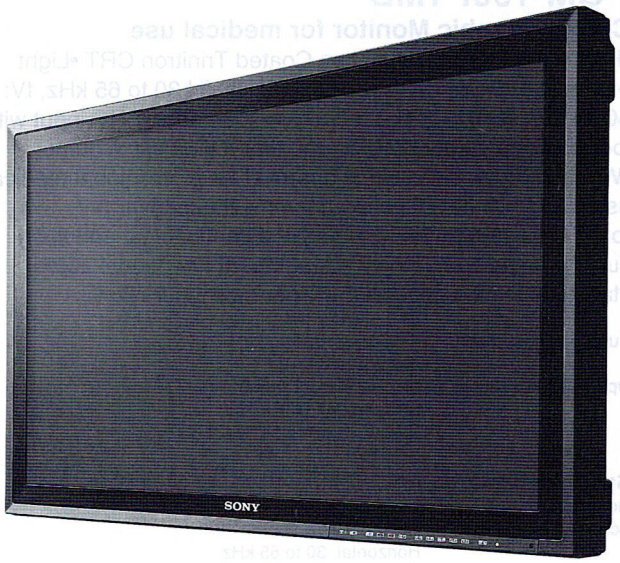
R/G/B:	Loop-through BNC 0.7 Vp-p, Automatic 75 Ω termination
HD/VD:	Loop-through BNC TTL level, automatic 2.2 kΩ termination

Audio performance

	Loop-through phono jack -5 dBu, more than 47 kΩ
Speaker out:	0.2 W, monaural

PFM-510A1WE

•16:9 aspect, 42-inch diagonal Plasma Display Panel •1024 × 1024 pixels resolution, 16.8 million colours •Accepts signals with horizontal frequency of 15.6 to 80 kHz with built-in high performance scan converter •Option slot •On-Screen Display in five languages •Carrying handles and unique retractable feet for easy handling capability •Self diagnosis function and detachable power supply block for easy maintenance access •Various remote control capabilities: supplied RM-921 remote commander, Control-S or RS-232C •7 W + 7 W built-in amplifier •Audio monitor out



Supplied accessories:	AC power cord (1) AC plug holder (1) Remote commander RM-921 AA (R6) battery (2) Connector cover (2) Foot support bracket (2) Ferrite core (2) Operation manual (1)
Optional accessories:	Speaker system SS-X500A Mounting bracket MB-514 SDI 4:2:2 input adaptor BKM-501D

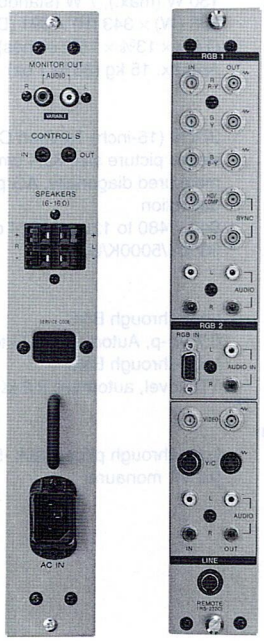
Specifications

Picture performance

Panel:	
Resolution:	1024 × 1024 pixels
Pixel pitch:	0.90 × 0.51 mm
Active area (W/H):	920 × 518 mm 42-inch/1,056 mm (measured diagonally)
Driver:	8-bit RGB
Colours:	16.8 million simultaneously
Type:	AC-type Plasma Display Panel with anti-glare screen
Colour system:	NTSC/PAL (Composite, Y/C, YUV, RGB), HDTV ($Y/P_B/P_R$, RGB)
Capture range:	fH: 15.6 kHz to 80 kHz fV: 48 Hz to 120 Hz
Sampling rate:	12.5 to 50 MHz offset phase max.
Preset signals:	12 formats

Inputs/Outputs

RGB 1:	BNC
RGB:	0.714 Vp-p/non-composite, 1.0 Vp-p/composite, 75 Ω automatic termination, loop-through
YUV:	0.7 Vp-p/non-composite (U/V), 1.0 Vp-p/composite (Y), 75 Ω automatic termination, loop-through
HD/COMP, VD:	H (or composite) sync, V sync, 1.0 to 5.0 Vp-p, 75 Ω high impedance, loop-through
Audio (L/R):	Phono, 500 mV rms, high impedance, loop-through
RGB 2:	D-sub 15-pin
RGB:	0.714 Vp-p/non-composite, 1.0 Vp-p/composite
External sync:	H (or composite) sync, V sync, 1.0 to 5.0 Vp-p, 75 Ω high impedance
Audio (L/R):	Phono, 500 mV rms, high impedance
LINE:	
Composite:	BNC, 1.0 Vp-p, sync negative, 75 Ω automatic termination, loop-through
Y/C:	Mini DIN 4-pin connector
Y:	1.0 Vp-p, sync negative
C:	0.286 Vp-p (NTSC)/0.3 Vp-p (PAL), 75 Ω automatic termination, loop-through
Audio (L/R):	Phono, 500 mV rms, high impedance, loop-through
Sync signal:	External H/V separate sync or composite sync, Sync-on-Green, automatic or manual selectable *Tri-level sync is available for HDTV
Audio output:	
Speakers terminal:	6 to 16 Ω, 7 W + 7 W (at 8 Ω)
Monitor out (L/R):	Phono, 500 mV rms at Volume max., attenuation 0 dB to ∞ (variable), total harmonic distorsion less than 1%
Remote:	
Control S IN/OUT:	Stereo mini jack, 5.0 Vp-p
RS-232C:	Mini DIN 8-pin



(L) (R)

General

Power requirements/ Power consumption:	220 to 240 V AC ±10%, 50/60 Hz 2 A, 360 W
Operating temperature:	0 °C to 35 °C (32 °F to 95 °F)
Storage temperature:	-10 °C to 40 °C (14 °F to 104 °F)
Humidity:	0% to 90%, no condensation
Dimensions:	1036 (W) × 636 (H) × 152 (D) mm (40¾ × 25 × 6¾ inches)
Mass:	Approx. 45 kg (99 lb 3 oz)

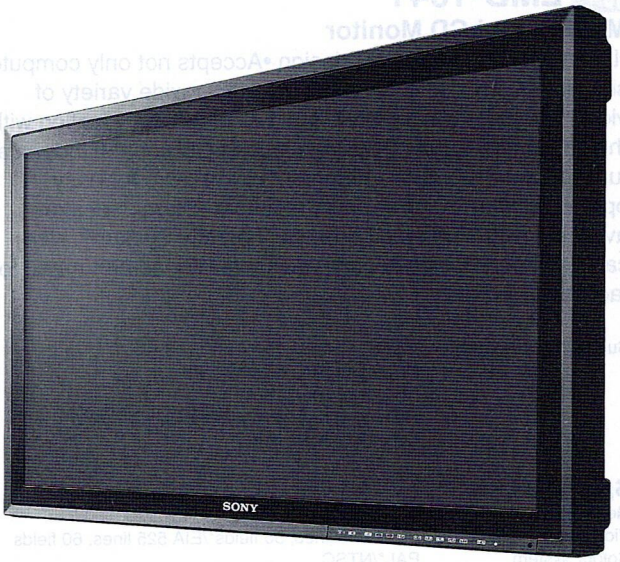
Regulation compliance

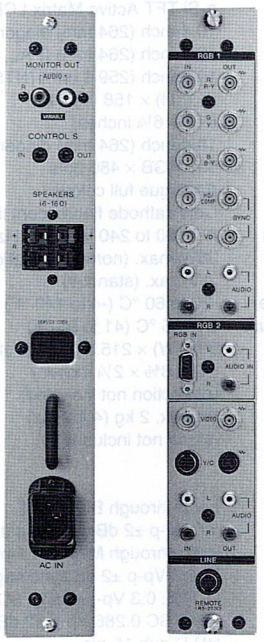
UL 1950 listed, CSA 22.2 No.950, TÜV EN 60 950 (CE LVD), C-Tick, FCC Class A, IC Class A, CE EN 55 022 Class-A/EN 50 082-2/EN 60 555-2, VCCI-A

PFM-500A2WE

•16:9 aspect, 42-inch diagonal Plasma Display Panel •852 × 480 pixels resolution, 16.8 million colours •Accepts signals with horizontal frequency of 15.6 to 100 kHz with built-in high performance scan converter •Option slot •On-Screen Display in five languages •Carrying handles and unique retractable feet for easy handling capability •Self diagnosis function and detachable power supply block for easy maintenance access •Various remote control capabilities: supplied RM-921 remote commander, Control-S or RS-232C •7 W + 7 W built-in amplifier •Audio monitor out

Supplied accessories:	AC power cord (1) AC plug holder (1) Remote commander RM-921 AA (R6) battery (2) Connector cover (2) Foot support bracket (2) Ferrite core (2) Operation manual (1)
Optional accessories:	Speaker system SS-X500A Mounting bracket MB-514 SDI 4:2:2 input adaptor BKM-501D





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Specifications

Picture performance

Panel:	
Resolution:	852 × 480 pixels
Pixel pitch:	1.08 × 1.08 mm
Active area (W/H):	920 × 518 mm 42-inch/1,056 mm (measured diagonally)
Driver:	8-bit RGB
Colours:	16.8 million simultaneously
Type:	AC-type Plasma Display Panel with anti-glare screen
Colour system:	NTSC/PAL (Composite, Y/C, YUV, RGB), HDTV ($Y/P_B/P_R$, RGB)
Capture range:	fH: 15.6 kHz to 100 kHz fV: 48 Hz to 120 Hz
Sampling rate:	12.5 to 50 MHz offset phase max.
Preset signals:	12 formats

Inputs/Outputs

RGB 1:	BNC
RGB:	0.714 Vp-p/non-composite, 1.0 Vp-p/composite, 75 Ω automatic termination, loop-through
YUV:	0.7 Vp-p/non-composite (U/V), 1.0 Vp-p/composite (Y), 75 Ω automatic termination, loop-through
HD/COMP, VD:	H (or composite) sync, V sync, 1.0 to 5.0 Vp-p, 75 Ω high impedance, loop-through
Audio (L/R):	Phono, 500 mV rms, high impedance, loop-through
RGB 2:	D-sub 15-pin
RGB:	0.714 Vp-p/non-composite, 1.0 Vp-p/composite
External sync:	H (or composite) sync, V sync, 1.0 to 5.0 Vp-p, 75 Ω high impedance
Audio (L/R):	Phono, 500 mV rms, high impedance
LINE:	
Composite:	BNC, 1.0 Vp-p, sync negative, 75 Ω automatic termination, loop-through
Y/C:	Mini DIN 4-pin connector
Y:	1.0 Vp-p, sync negative
C:	0.286 Vp-p (NTSC)/0.3 Vp-p (PAL), 75 Ω automatic termination, loop-through
Audio (L/R):	Phono, 500 mV rms, high impedance, loop-through
Sync signal:	External H/V separate sync or composite sync, Sync-on-Green, automatic or manual selectable *Tri-level sync is available for HDTV
Audio output:	
Speakers terminal:	6 to 16 Ω, 7 W + 7 W (at 8 Ω)
Monitor out (L/R):	Phono, 500 mV rms at Volume max., attenuation 0 dB to ∞ (variable), total harmonic distorsion less than 1%
Remote:	
Control S IN/OUT:	Stereo mini jack, 5.0 Vp-p
RS-232C:	Mini DIN 8-pin

General

Power requirements/ Power consumption:	220 to 240 V AC ±10%, 50/60 Hz 2.0 A 360 W
Operating temperature:	0 °C to 35 °C (32 °F to 95 °F)
Storage temperature:	-10 °C to 40 °C (14 °F to 104 °F)
Humidity:	0% to 90%, no condensation
Dimensions:	1036 (W) × 636 (H) × 152 (D) mm (40¾ × 25 × 6¾ inches)
Mass:	Approx. 45 kg (99 lb 3 oz)

Regulation compliance

UL 1950 listed, CSA 22.2 No.950, TÜV EN 60 950 (CE LVD), C-Tick, FCC Class A, IC Class A, CE EN 55 022 Class-A/EN 50 082-2/EN 60 555-2, VCCI-A

10.4" LMD-1041

Multi-input LCD Monitor

•Lightweight and compact design •Accepts not only computer signals (fH: 15 kHz to 36 kHz), but also a wide variety of video signals •Remarkably beautiful colour reproduction with the brilliant full-colour, high resolution LCD panel •Underscan function available •IR remote control available for easy operation when using multiple monitors •Stereo speaker available •Kensington MicroSaver Security System®, wire can be attached as a security measure •On-screen menu for facilitated operation

Supplied accessories:	Stand Screws to secure stand (×2) AC power cord Remote control commander RM-LMD1041 Operating instructions

Specifications

General

Video signal system	CCIR 625 lines, 50 fields*/EIA 525 lines, 60 fields
Colour system	PAL*/NTSC
Scanning frequency	VGA, Macintosh 13-inch mode (fH: 15 to 36 kHz, fV: 45 to 73 Hz)
Panel type	a-Si TFT Active Matrix LCD 10.4-inch (264 mm) diagonal, viewable area 10.4-inch (264 mm) (PAL, Computer)/ 10.2-inch (259.3 mm) (NTSC) diagonal
Pixel area	211 (H) × 158 (V) mm (8⅜ × 6¼ inches) 10.4-inch (264 mm) diagonal
Number of dots	640 RGB × 480 dots
Display colour	Analogue full colour
Backlight	Cold cathode fluorescent light
Power requirements	AC 100 to 240 V, 50/60 Hz
Power consumption	28W max. (normal operation) 7W max. (standby)
Storage temperature	-20 to 60 °C (-4 to 140 °F)
Operating temperature	5 to 35 °C (41 to 95 °F)
Dimensions:	305 (W) × 215.3 (H) × 57.4 (D) mm (12 × 8⅝ × 2¼ inches) (projection not included)
Mass	Approx. 2 kg (4 lb 6 oz) (stand not included)

Video

Line A	Loop-through BNC 1.0 Vp-p ±2 dB sync negative, 75 Ω
Line B	Loop-through Mini DIN 4-pin Y: 1.0 Vp-p ±2 dB sync negative, 75 Ω C: PAL 0.3 Vp-p±2dB, 75Ω, NTSC 0.286 Vp-p ±2 dB
Line C	HD D-sub 15-pin YUV: R-Y/B-Y: 0.7 Vp-p Y:1.0 Vp-p (sync 0.3 V)
RGB:	R/B/G: 0.7 Vp-p C sync: 1.0 Vp-p

Computer

Computer	HD D-sub 15-pin (Line C) RGB: 0.7 Vp-p, 75 Ω Sync: Composite sync: TTL level negative Separate sync: TTL level negative/positive Sync on G: 0.3 Vp-p, negative

Audio

Audio signal	Mini jack input: Audio input -5 dBu, 47 kΩ or more output: Headphone 16 Ω or more speaker 0.5 W + 0.5 W

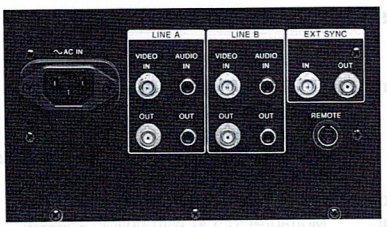
* Line reduction PAL signal.

14" PVM-146E (CCIR/EIA)

Black & White Monitor

•CCIR or EIA automatic selection •Switchable aspect ratio(4:3 and 16:9) •A high resolution of 1000 TV lines at centre •Incorporates a CRT with D65 •H/V delay, Underscan capability •Equipped with a notch filter •Built-in speaker for audio monitoring •Accepts external sync •Tally input •Rack mountable with the optional mounting bracket MB-502B and slide rail kit SLR-102

Supplied accessories: AC power cord, AC plug holders, Number plate (1 set), Remote connector 8-pin, Operation manual
Optional accessories: Rack mounting bracket MB-502B
Slide rail kit SLR-102



Specifications

General

Video signal system:	CCIR 625 lines, 50 fields/EIA 525 lines, 60 fields (switching of CCIR to EIA or vice versa is automatically done)
Picture tube:	34 cm (14-inch) CRT, 32.1 cm (13-inch) visible picture measured diagonally, 90° deflection
Horizontal resolution:	1000 TV lines at centre
Audio power output:	Monaural, 0.5 W with built-in speaker
Power requirements:	AC 100 to 240 V 0.3 to 0.18 A, 50/60 Hz
Power consumption:	25 W
Dimensions:	346 (W) × 340 (H) × 330 (D) mm (13⅝ × 13½ × 13 inches)
Mass:	11 kg (24 lb 4 oz)

VIDEO

Line A:	Loop-through BNC, 1 Vp-p, sync negative, Automatic 75 Ω termination*
Line B:	Loop-through BNC, 1 Vp-p, sync negative, Automatic 75 Ω termination*
External sync:	Loop-through BNC, 1 to 4 Vp-p negative, Automatic 75 Ω termination*

AUDIO

Line A:	Loop-through Phono, -5 dBu, high impedance
Line B:	Loop-through Phono, -5 dBu, high impedance

* 75 Ω termination is automatically set to OFF when connection is made to the OUT connector

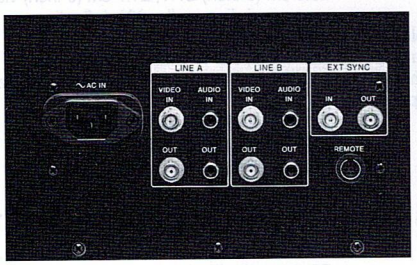
DISPLAY PRODUCTS

14" PVM-145E (CCIR/EIA)

Black & White Monitor

•CCIR or EIA automatic selection •A high resolution of 1000 TV lines at centre •Built-in speaker for audio monitoring •Accepts external sync •Rack mountable with the optional mounting bracket MB-502B and slide rail kit SLR-102

Supplied accessories: AC power cord, AC plug holders, Operation manual
Optional accessories: Rack mounting bracket MB-502B
Slide rail kit SLR-102



Specifications

General

Video signal system:	CCIR 625 lines, 50 fields/EIA 525 lines, 60 fields (switching of CCIR to EIA or vice versa is automatically done)
Picture tube:	34 cm (14-inch) CRT, 32.1 cm (13-inch) visible picture measured diagonally, 90° deflection
Horizontal resolution:	1000 TV lines at centre
Audio power output:	Monaural, 0.5 W with built-in speaker
Power requirements:	AC 100 to 240 V 0.3 to 0.18 A, 50/60 Hz
Power consumption:	25 W
Dimensions:	346 (W) × 340 (H) × 330 (D) mm (13⅝ × 13½ × 13 inches)
Mass:	11 kg (24 lb 4 oz)

VIDEO

Line A:	Loop-through BNC, 1 Vp-p, sync negative, Automatic 75 Ω termination*
Line B:	Loop-through BNC, 1 Vp-p, sync negative, Automatic 75 Ω termination*
External sync:	Loop-through BNC, 1 to 4 Vp-p negative, Automatic 75 Ω termination*

AUDIO

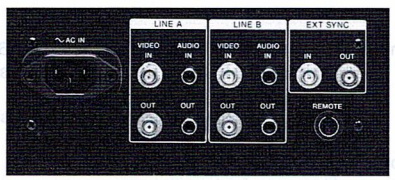
Line A:	Loop-through Phono, -5 dBu, high impedance
Line B:	Loop-through Phono, -5 dBu, high impedance

9" PVM-96E (CCIR/EIA)

Black & White Monitor

•CCIR/EIA automatic selection •Switchable aspect ratio (4:3 and 16:9) •A high resolution of 900 TV lines at center •Incorporates a CRT with D65 •H/V delay, Underscan capability •Equipped with a notch filter •Built-in speaker for audio monitoring •Accepts external sync •Tally input •Rack mountable with a second PVM-96E or an optional blank panel MB-509 by using the optional MB-507 rack mounting bracket

Supplied accessories: AC power cord, AC plug holders, Remote connector 8-pin, Operation manual
Optional accessories: Rack mounting bracket MB-507
Blank panel MB-509



Specifications

General

Video signal system:	CCIR 625 lines, 50 fields/EIA 525 lines, 60 fields (switching of CCIR to EIA or vice versa is automatically done)
Picture tube:	23.0 cm (9-inch) CRT, 21.7 cm (9-inch) visible picture measured diagonally, 90° deflection
Horizontal resolution:	900 TV lines at centre
Audio power output:	Monaural, 0.5 W with built-in speaker
Power requirements:	AC 100 to 240 V 0.3 to 0.18 A, 50/60 Hz
Power consumption:	23 W
Dimensions:	217 (W) × 218 (H) × 250 (D) mm (8⅝ × 8⅝ × 9⅞ inches)
Mass:	5.5 kg (12 lb 2 oz)
VIDEO	
Line A:	Loop-through BNC 1 Vp-p, sync negative, Automatic 75 Ω termination*
Line B:	Loop-through BNC 1 Vp-p, sync negative, Automatic 75 Ω termination*
External sync:	Loop-through BNC, 1 to 4 Vp-p negative, Automatic 75 Ω termination*
AUDIO	
Line A:	Loop-through Phono, -5 dBu, high impedance
Line B:	Loop-through Phono, -5 dBu, high impedance

* 75 Ω termination is automatically set to OFF when connection is made to the OUT connector.

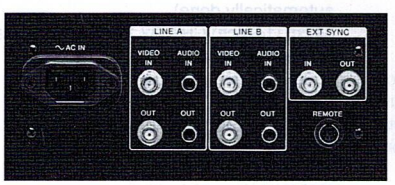
DISPLAY PRODUCTS

9" PVM-95E (CCIR/EIA)

Black & White Monitor

•CCIR/EIA automatic selection •A high resolution of 900 TV lines at centre •Built-in speaker for audio monitoring •Accepts external sync •Rack mountable with a second PVM-95E or an optional blank panel MB-509 by using the optional MB-507 rack mounting bracket

Supplied accessories: AC power cord, AC plug holders, Operation manual
Optional accessories: Rack mounting bracket MB-507
Blank panel MB-509



Specifications

General

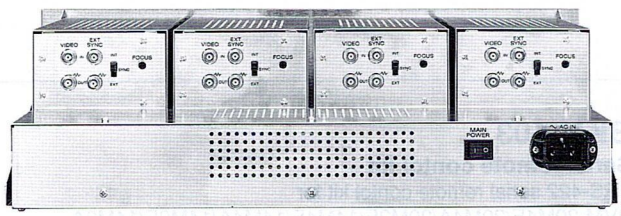
Video signal system:	CCIR 625 lines, 50 fields/EIA 525 lines, 60 fields (switching of CCIR to EIA or vice versa is automatically done)
Picture tube:	23.0 cm (9-inch) CRT, 21.7 cm (9-inch) visible picture measured diagonally, 90° deflection
Horizontal resolution:	900 TV lines at centre
Audio power output:	Monaural, 0.5 W with built-in speaker
Power requirements:	AC 100 to 240 V 0.3 to 0.18 A, 50/60 Hz
Power consumption:	23 W
Dimensions:	217 (W) × 218 (H) × 250 (D) mm (8⅝ × 8⅝ × 9⅞ inches)
Mass:	5.5 kg (12 lb 2 oz)
VIDEO	
Line A:	Loop-through BNC, 1 Vp-p, sync negative, Automatic 75 Ω termination*
Line B:	Loop-through BNC, 1 Vp-p, sync negative, Automatic 75 Ω termination*
External sync:	Loop-through BNC, 1 to 4 Vp-p negative, Automatic 75 Ω termination*
AUDIO	
Line A:	Loop-through Phono, -5 dBu, high impedance
Line B:	Loop-through Phono, -5 dBu, high impedance

* 75 Ω termination is automatically set to OFF when connection is made to the OUT connector.

4" PVM-4B1E (CCIR/EIA)

Black & White Video Monitor

•Ideal for use for camera monitoring in video studio and surveillance systems with multiple camera installations •Compatible with CCIR and EIA systems (automatically selected) •High resolution of 500 TV lines •Stable picture reproduction with the high voltage regulation circuit •Accepts an external sync signal •Loop-through video and sync terminals with automatic 75 Ω termination •Can be mounted in a standard 19-inch rack •Individual power and individual controls available



Supplied accessories: AC power cord (1)
AC plug holder (1 set)
Operating instructions (1)

Specifications

General

System:	CCIR 625 lines/50 fields, EIA 525 lines/60 fields (automatically selected)
Frequency response:	10 MHz (-3 dB)
Power requirements:	AC 100 to 240 V, 50/60 Hz
Power consumption:	59 W
Dimensions:	483 (W) × 133 (H) × 356 (D) mm (19⅛ × 5¼ × 14⅛ inches)
Mass:	11.7 kg (25 lb 13 oz)
Operating temperature:	0 to 35 °C (32 to 95 °F)
Operating humidity:	0 to 90%

CRT performance

CRT type:	10 cm (4-inch) CRT, visible picture size 9.4 cm (3¾ inch) (min.) measured diagonally, 50° deflection
Resolution:	500 TV lines

Picture performance

Normal scan:	7% overscan
Linearity:	H: less than 8%, V: less than 7%

Input performance

VIDEO:	Loop-through BNC 1.0 Vp-p ±6 dB, sync negative, automatic 75 Ω termination
EXT SYNC:	Loop-through BNC 0.5 to 4.0 Vp-p, sync negative, automatic 75 Ω termination

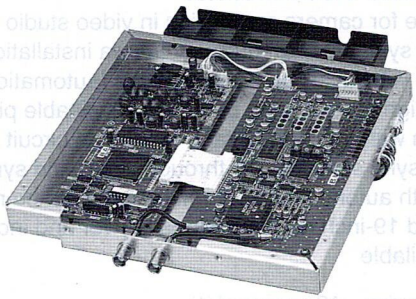
Regulation Compliance:
CE, LVD (TÜV)

BKM-101C/102

Component serial digital interface kit 101C (video)/ 102(audio)

•Component serial digital interface for PVM-20M4E/20M4A/20M2E/14M4E/14M4A/14M2E/14M2A

Mass: BKM-101C: 820 g (1 lb 13 oz)
870 g (1 lb 15 oz)
(with installation kit for PVM-2054QM)
BKM-102: 130 g (4.6 oz)

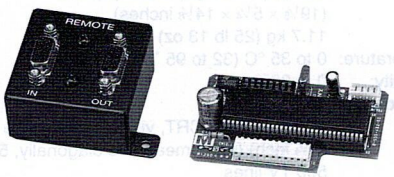


BKM-103

Serial remote contol kit

• RS-422 serial remote contol kit for PVM-20M4E/20M4A/20M2E/14M4E/14M4A/14M2E/14M2A

Mass: 157 g (5.5 oz)



RM-921

Remote controller

• Remote controller for PGM-200R1E*/200R1A*/200R2E and PFM-510A1WE*/500A2WE*

Dimensions: 43 (W) × 213 (H) × 25 (D) mm
(1¾ × 8½ × 1 inches)
Mass: 125 g (4 oz) with batteries

*The RM-921 is supplied with the PGM-200R1E/200R1A and PFM-510A1WE/500A2WE.

BKM-201SC

Scan Converter Adaptor

•Scan converter adaptor for PGM-200R1E/200R1A
•Capable of converting signals with fH 15.6 to 85kHz into VGA

Format Conversion
Capture range: fH 15.6 kHz to 85 kHz, fV 50 Hz to 120 Hz
Sampling rate: 17.9 to 40 MHz offset phase max.
Output pixel clock: 25.2 to 38 MHz max.
Line doubler: Line doubled vertically for each field

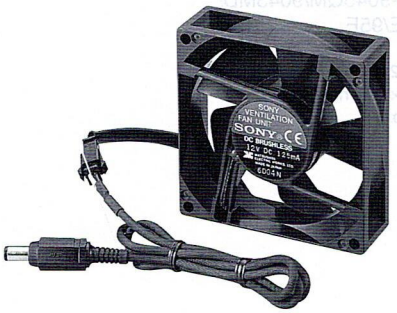
Dimensions: 88 (W) × 439 (H) × 254.6 (D) mm
(3½ × 17⅜ × 10⅛ inches)
Mass: Approx. 2.35 kg (5 lb 3 oz)

BKM-202FN

Cooling fan unit

•Cooling fan unit for PGM-200R1E/200R1A/200R2E
•Prevents heat build up inside the cabinet by powerfully ventilating the air out of the monitor
•DC 12 V supplied from the monitor

Dimensions: 80 (W) × 80 (H) × 25 (D) mm (3¼ × 3¼ × 1 inches)
Mass: 125 g (4 oz)

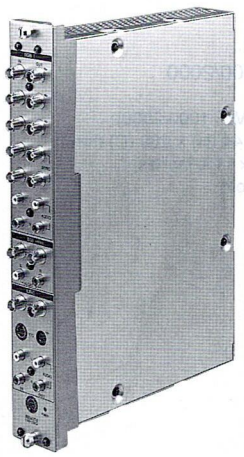


BKM-501D

SDI 4:2:2 input adaptor

•Input adaptor for PFM-510A1WE/500A2WE
•SDI Video and Audio decoding

Dimensions: 53 (W) × 359 (H) × 260 (D) mm (2⅛ × 14¼ × 10¼ inches)
Mass: Approx. 1.8 kg (3 lb 15 oz)



MB-502B

Mounting bracket

•Bracket for PVM-14M4E/14M4A/14M2E/14M2A/14M2MDE/14M2MDA/14N6E/14N6A/14N5E/14N5A/14N5MDE/146E/145E (used with SLR-102)

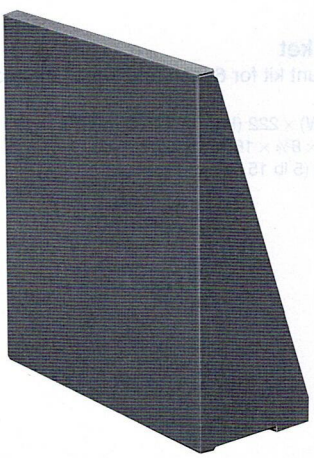
Dimensions: 483 (W) × 355 (H) × 302 (D) mm (19⅛ × 14 × 12 inches)
Mass: 3.8 kg (8 lb 6 oz)

MB-508

Mounting attachment

•Blank panel for PVM-6041QM

Dimensions: 146 (W) × 168.5 (H) × 63 (D) mm (5¾ × 6¾ × 2½ inches)
Mass: 200 g (7 oz)

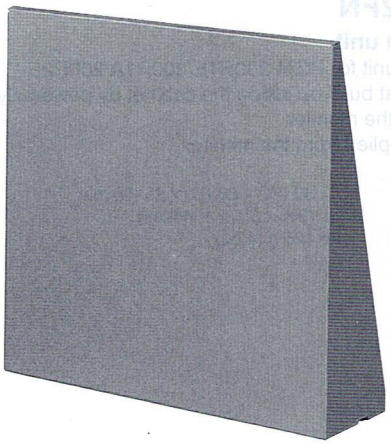


MB-509

Mounting attachment

•Blank panel for PVM-9045QM/9043MD/9042QM/9040ME/96E/95E

Dimensions: 217 (W) × 212.5 (H) × 63 (D) mm (8⅝ × 8⅜ × 2½ inches)
Mass: 400 g (14 oz)

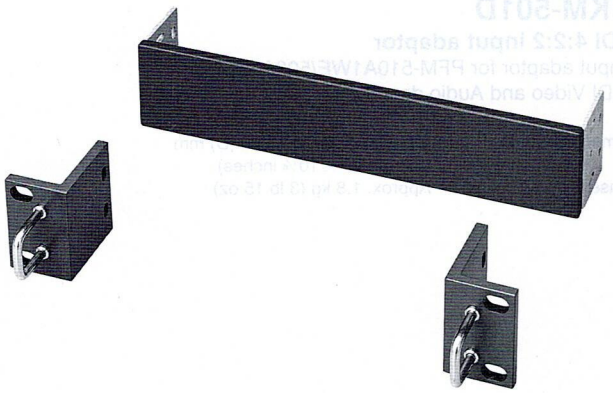


MB-510

Mounting bracket

•Bracket for DMIF-1000/2000

Dimensions (with two DMIF-1000/2000): 482 (W) × 44 (H) × 280 (D) mm (19 × 1¾ × 11⅛ inches)
Mass: 300 g (10 oz)

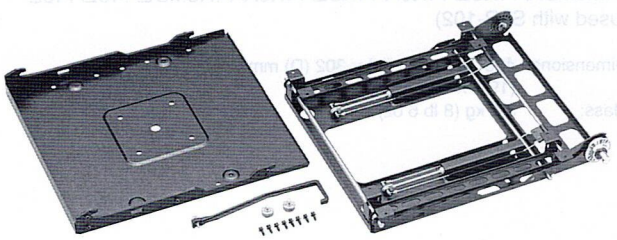


MB-514

Mounting bracket for PFM-510A1WE/500A2WE

•For wall-mounting installation
•Monitors can be tilted 0 to 20 degrees downward from the wall
•Separate parts for easy installation

Dimensions: Bracket for wall: 455 (W) × 500 (H) × 57 (D) mm (18 15/16 × 19 11/16 × 2¼ inches)
Bracket for monitor: 470 (W) × 535 (H) × 56.5 (D) mm (18⅝ × 21⅛ × 2¼ inches)
Mass: Bracket for wall: Approx. 5.2 kg (11 lb 7 oz)
Bracket for monitor: Approx. 5.8 kg (12 lb 13 oz)

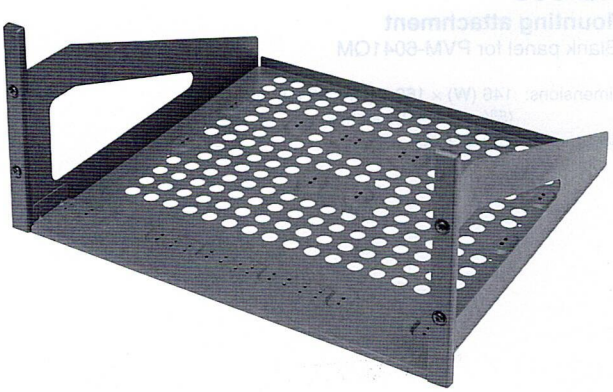


MB-520

Mounting bracket

•19-inch rack mount kit for 6-inch and 9-inch monitors

Dimensions: 479 (W) × 222 (H) × 422.3 (D) mm (18⅞ × 8¾ × 16¾ inches)
Mass: 2.7 kg (5 lb 15 oz)



VF-504

Monitor ENG kit

•Monitor hood and cord reel for PVM-6041QM

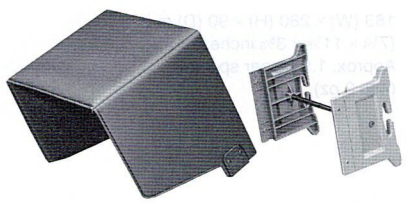
Dimensions: Hood:
159 (W) × 172 (H) × 160 (D) mm
(6⅜ × 6⅞ × 6⅜ inches)
(with PVM-6041QM):
159 (W) × 178 (H) × 567.5 (D) mm
(6⅜ × 7⅛ × 22⅜ inches)
Mass: 400 g (14 oz)

VF-505

Monitor ENG kit

•Monitor hood and cord reel for PVM-9045QM/9042QM

Dimensions: Hood:
230 (W) × 215 (H) × 200 (D) mm
(9⅛ × 8½ × 7⅞ inches)
(with PVM-9045QM/9042QM):
230 (W) × 222 (H) × 607.5 (D) mm
(9⅛ × 8¾ × 24 inches)
Mass: 500 g (1 lb 1 oz)



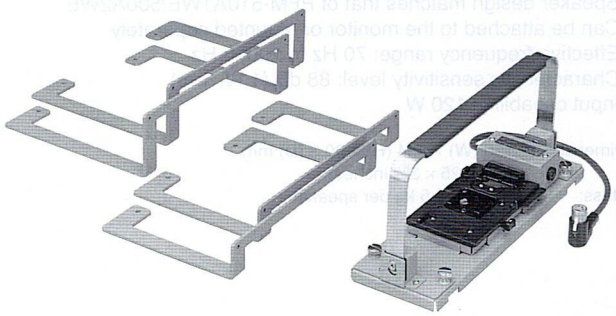
DC-L10

Battery adaptor

•Attaches a rechargeable Lithium-ion battery pack BP-L60A or BP-L90A to PVM-9045QM/9042QM/6041QM
•Retractable handle
•Easily detachable upper part of adaptor bracket

Specification

Operating time*:
BP-L60A Approx. 100 min. (typical)
BP-L60A Approx. 160 min. (typical)
*Actual operating times may vary.
Dimensions: 315 (W) × 146 (H) × 100 (D) mm
(12½ × 5¾ × 4 inches)
Mass: With attachment frames for 9-inch monitor: 2.35 kg (5 lb 19 oz)
With attachment frames for 6-inch monitor: 2.15 kg (4 lb 28 oz)
DC output: DC 12 V, Right angle XLR 4-pin connector (female)
DC fuse: 5 A



DCC-XLR4

Car battery cord

• Car battery cord for PVM-9045QM/9042QM/6041QM

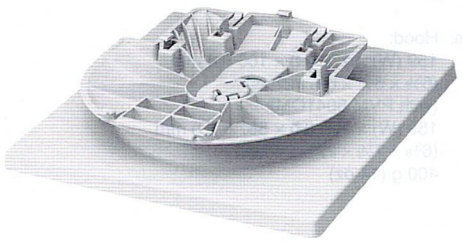
Power requirements:
12 V/24 V DC
Output voltage:
12 V: 5 A (Max.)
24 V: 5 A (Max.)
Cord length: 3 m (9 ft 9 inches)
Mass: 175 g (6 oz)

SU-556

Monitor stand

•Stand for PGM-100P1MD

Dimensions: 240 (W) × 57 (H) × 238 (D) mm
(9½ × 2¼ × 9⅜ inches)
Mass: Approx. 450 g (1 lb)



SS-X7A

Speaker system

•High quality stereo sound by two-way bass-reflex speaker system with cone-type woofer and tweeter

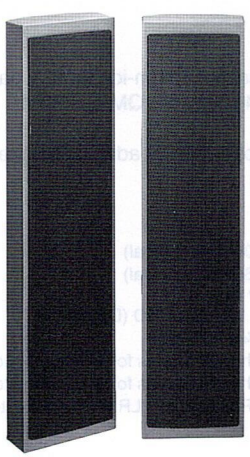
Dimensions: 183 (W) × 280 (H) × 90 (D) mm
(7¼ × 11⅛ × 3⅝ inches)
Mass: Approx. 1.9 kg per speaker
(4 lb 3 oz)

SS-X500A

Speaker system

•Speaker design matches that of PFM-510A1WE/500A2WE
•Can be attached to the monitor or mounted separately
•Effective frequency range: 70 Hz to 20000 Hz
•Characteristic sensitivity level: 88 dB (1 W, 1 m)
•Input capability: 120 W

Dimensions: 159 (W) × 634 (H) × 90.3 (D) mm
(2¼ × 25 × 3⅝ inches)
Mass: Approx. 3.5 kg per speaker
(7 lb 11 oz)



TU-1040E

TV tuner unit

•TV tuner unit compatible with various TV broadcast systems: B/G/H, L, I and D/K

Dimensions: 212 (W) × 49.3 (H) × 361 (D) mm
(8⅜ × 2 × 14¼ inches)
Mass: 2.05 kg (4 lb 8 oz)

SLR-102/103A

Slide rail kit

•SLR-102 for PVM-14M4E/14M4A/14M2E/14M2A/14M2MDE/14M2MDA/14N6E/14N6A/14N5E/14N5A/146E/145E (used with MB-502B)

•SLR-103A for PVM-20M4E/20M4A/20M2E/20M2MDE/20M2MDA/20N6E/20N6A/ 20N5E/20N5A

SLR-102

SLR-103A

VPH-G90E/G90M*1 (PAL/NTSC/SECAM/NTSC4.43)

•Multiscan capability: horizontal 15 kHz to 150 kHz, vertical 35 Hz to 150 Hz •Incorporates new, high resolution 9-inch electromagnetic focus CRTs •Incorporates a Universal Optical Coupling •Remarkable light output of 350 ANSI lm*2 (150 kHz: 50 Hz, 6500 K), 1300 lm (peak white), 500 lm (all white) •High resolution of 700 TV lines (VIDEO), 1100 TV lines (HDTV) 2500 x 2000 pixels (RGB, measured at fH: 102 kHz, fV: 50 Hz) •Wide RGB bandwidth of 135 MHz •Wider range of registration adjustments for accurate registration •HACC lens for superior and stable picture performance •Video decoder circuit for enhanced video picture quality*3 •Sony Digital Reality Creation •Responds to both analogue/digital RGB signals •Supplied wired/wireless remote control unit RM-PJ1001 controls all the projector functions such as set-up adjustments and operational functions •Various optional accessories available for system versatility •Desk top mounted projection, ceiling mounted projection, floor mounted projection and rear projection capabilities •Can be used with screens from 90 to 300 inches in size with simple adjustments

VPH-G90E

VPH-G90M

Supplied accessories:	Remote control unit RM-PJ1001 Remote control cable 15 m (Stereo Mini Jack) Adjustment plate AA size battery (3) AC power cord Operating manual Installation manual
Optional accessories:	Interface board: IFB-12A/21/50/1000/1400/G90E*4 Signal interface cables: SIC-10/20A/20C/22/M1/M5/M15/M25/M50 Signal interface switchers: PC-3000/1271M Interface unit: IFU-1271M Suspension support: PSS-90/10 Infrared remote control receiver: RM-PJ10 Signal adaptor: ADP-20 HD D-sub 15-pin to 5 BNC cable: SMF-400 HD D-sub 15-pin to HD D-sub 15-pin cable: SMF-401 Projection lens: VPHL-9270 100-inch flat screen*1: VPS-100FH 120-inch flat screen*1: VPS-120FH

Specifications

General

Video signal system:	CCIR 625 lines, 50 fields/EIA 525 lines, 60 fields (switching of CCIR to EIA or vice versa is automatically done)
Colour system:	PAL/NTSC/SECAM/NTSC4.43 automatically selected
Brightness:	ANSI*2 350 lm (fH: 150 kHz, fV: 50 Hz, 6500 K) ANSI 130 lm (fH: 15 kHz, fV: 60 Hz, 6500 K)
Peak white:	1300 lm
All white:	500 lm
Colour temperature:	6500K
RGB bandwidth:	135 MHz (-3dB)
Resolution:	700 TV lines (video), 1100 TV lines (HDTV) 2500 × 2000 pixels (RGB, measured at fH: 102 kHz, fV: 50 Hz)
Scanning frequency:	Horizontal: 15 to 150 kHz Vertical: 38 to 150 Hz
Test signals:	Cross hair, Hatch reverse (9 × 9/17 × 17), Dot (9 × 9), Dot (17 × 17) & Hatch (5 × 5), H/H reverse, ME/ME reverse, All white, Window, Window and line colour bar, Pluge, Stair-step, Sub-pattern, Cross (9 × 9), Hatch (5 × 5), 10 IRE, 100 IRE
Power requirements:	AC 220 to 240 V, 50/60 Hz
Power consumption:	Max. 1000 W, Stand-by 14 W, Power saving mode 600 W
Heat dissipation:	3412.5 BTU
Mass:	Approx. 110 kg (242 lb 8 oz)
Operating temperature:	0 to 40 °C (14 to 104 °F)
Operating humidity:	35 to 85%

Inputs/Outputs

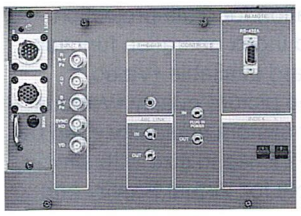
Video*4:	
Composite*5:	Loop-through BNC 1Vp-p, ±2 dB sync negative, 75Ω automatic termination*6
Y IN:	BNC, 1 Vp-p ±2 dB sync negative, 75 Ω terminated
C IN:	BNC, 0.3 Vp-p ±2 dB (PAL), 75 Ω terminated or Burst 0.286 Vp-p ±2 dB (NTSC), 75 Ω terminated
Y/C IN*5:	Loop-through Mini DIN 4-pin
Y (luminance):	1.0 Vp-p ±2 dB sync negative, 75 Ω automatic termination*6
C (chrominance):	0.3 Vp-p ±2 dB (PAL) 75 Ω automatic termination*6 or Burst 0.286 Vp-p ±2 dB (NTSC), 75 Ω automatic termination*6
Input A:	
Analogue RGB/ Component:	BNC
R/R-Y/PR:	0.7 Vp-p, ±2 dB positive, 75 Ω terminated
G/Y:	0.7 Vp-p, ±2 dB positive, 75 Ω terminated
G with Sync:	1.0 Vp-p, ±2 dB sync negative, 75 Ω terminated
B/B-Y/PB:	0.7 Vp-p, ±2 dB positive, 75 Ω terminated
SYNC/HD:	Composite sync: 0.6 to 8.0 Vp-p, high impedance positive/negative Horizontal sync: 0.6 to 8.0 Vp-p, high impedance positive/negative
VD:	Vertical sync: 0.6 to 8.0 Vp-p, high impedance positive/negative
HDVS (Y/PB/PR):	BNC
Y:	1.0 Vp-p ±2 dB, 75 Ω terminated
PB/PR:	Tri-sync: ±0.3 Vp-p, bi-sync: 0.3 Vp-p, ±0.35 Vp-p ±2 dB, 75 Ω
HDVS (GBR):	BNC
G with sync:	1.0 Vp-p ±2 dB, 75Ω terminated Tri-sync: ±0.3 Vp-p, bi-sync: 0.3 Vp-p
B/R:	0.7 Vp-p ±2 dB, 75 Ω terminated
INPUT B:	Open slot for optional IFB boards
Control S /PLUG IN POWER:	
IN:	Stereo Mini Jack 5.0 Vp-p, Plug-in power DC 5 V, Max. output: 60 mA
OUT:	5.0 Vp-p
REMOTE:	
RS-232C/RS-422A:	IN: D-sub 9-pin (Female)
PJ COM (RS-485):	IN: D-sub 9-pin (Female) OUT: D-sub 9-pin (Female)
LINK:	
IN:	Stereo Mini Jack
OUT:	Stereo Mini Jack
TRIG:	Mini Jack
Power ON:	DC 12 V, Output impedance 4.7 kΩ
Power OFF:	0 V

*1 Some items are not available in some areas. For details, please consult your nearest Sony office.
*2 ANSI lumens is a measuring method of American National Standards Institute IT7.215.
*3 Applicable for VPH-G90M only.
*4 VPH-G90E requires optional IFB-G90E video input board. IFB-G90E is applicable for VPH-G90E only.
*5 The Y/C input has priority over the Video input.
*6 75 Ω termination is automatically set to OFF when connection is made to the OUT connector.

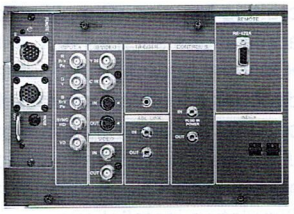
VPH-G70QM/G70QMG*1

(PAL/NTSC/SECAM/NTSC4.43/PAL-M)

•Multiscan capability: horizontal 15 kHz to 110 kHz, vertical 38 Hz to 150 Hz •Incorporates newly developed 8-inch electromagnetic focus CRTs •Incorporates an universal optical coupling •Remarkable light output of ANSI lumens9 (colour temperature: 6500°K): 240 lm (fH: 110 kHz, fV: 60 Hz)/ 200 lm (fH: 15 kHz, fV: 60 Hz), Peak white: 1200 lm •High resolution of 700 TV lines (video)/1100 TV lines (HDTV*3)/1700 × 1200 pixels (RGB in at fH: 74 kHz, fV: 60 Hz) •Wide RGB bandwidth of 120 MHz •New hybrid HACC lens for superb, stable picture performance •Precise registration with the Key/Pin balance mode and 25-point zone adjustment •Input memory and Video memory available for facilitated set up •Independent brightness and colour uniformity adjustments •Incorporates the Picture orbiting function •Simplified operation for multi-projection applications such as ABL link and Index operation functions •Optional internal line-doubler board available •Video decoder circuit for enhance video picture quality •Various optional accessories available for system versatility •Desk top mounted projection, ceiling mounted projection, floor mounted projection and rear projection capabilities •Can be used with screens from 60 to 300 inches in size with simple adjustments



VPH-G70QMG



VPH-G70QM

Supplied accessories:
- Remote commander RM-PJ1000
- Remote commander cable (15m)
- Adjusting plate
- AA size (R6) battery × 3
- AC power cord
- Operation manual
- Installation manual

Optional accessories:
- Interface board IFB-12/20/21/1000/1301/1400/G70QMG*1
- Signal interface cable SIC-10/20A/20C/21/22
- Multi-cable*1
  - CCQ-BRS cable (14-14pin: 2/5/10/25/50m)
  - SIC-M cable (14-14pin: 1/5/15/25/50m)
- Signal interface switcher PC-1271M
- Extension board EXB-DS10 (internal line-doubler board)
- Interface unit IFU-1271M*1
- Suspension support PSS-70
- Suspension support PSS-10
- Remote commander RM-PJM800
- Infrared remote control receiver RM-PJ10
- Mouse receiver RM-PJ21
- Signal adaptor ADP-10
  (HD D-sub 15-pin to D-sub 9-pin for SIC cable)
- Signal adaptor ADP-20 (Macintosh® to VGA)
- Monitor cable SMF-400 (HD D-sub 15-pin to 5BNC)
- Monitor cable SMF-401 (HD D-sub 15-pin to HD D-sub 15-pin)
- 9-pin remote cable RCC-5G/10G/30G
  (D-sub 9-pin to D-sub 9-pin for RS-422A)
- 100-inch flat screen VPS-100FH*1
- 120-inch flat screen VPS-120FH*1

Specifications

Optical

Projection system:	3 picture tubes, 3 lenses, direct projection system
Picture tube:	8-inch (phosphor size 6-inch) high luminance, electromagnetic focus tubes
Projection lens:	Double focus, F1.1/135 mm
Screen coverage:	60 to 300-inch measured diagonally, factory preset to 120-inch
Light output:	ANSI*2: 240lm (fH: 110 kHz, fV: 50 Hz, 6500K) 200 lm (fH: 15 kHz, fV: 60 Hz, 6500K) 1200 lm (peak white) 320 lm (all white)
Throwing distance:	60-inch 1668 mm (5 ft 5 21/32 inches) 70-inch 1921 mm (6 ft 3 5/8 inches) 100-inch 2689 mm (8 ft 9 7/8 inches) 120-inch 3200 mm (10 ft 5 31/32 inches) 150-inch 3972 mm (13 ft 3/8 inches) 200-inch 5254 mm (17 ft 2 27/32 inches) 250-inch 6539 mm (21 ft 5 7/16 inches) 300-inch 7831 mm (25 ft 8 5/16 inches)

Signals

Colour system:	PAL, NTSC, SECAM, NTSC4.43, PAL-M
Resolution:	700 TV lines (video) 1100 TV lines (HDTV) 1700 × 1200 pixels (RGB, measured at fH: 74 kHz, fV: 60 Hz)
Scanning frequency:	Horizontal: 15 to 110 kHz Vertical: 38 to 150 Hz
RGB bandwidth:	120 MHz (-3 dB)

General

Power requirements:	AC 220 to 240 V, 50/60 Hz
Power consumption:	720 W, Standby: 7 W
Heat dissipation:	2593.4 BTU
Operating temperature:	0 to 40 °C (32 to 104 °F)
Operating humidity:	35 to 85%
Storage temperature:	-20 to 60 °C (-4 to 140 °F)
Storage humidity:	10 to 90%
Dimensions:	695 (W) × 358 (H) × 948 (D) mm (27 3/8 × 14 1/8 × 37 5/16 inches)
Mass:	Approx. 83 kg (183 lb)

Inputs/Outputs

Video*4:
- Composite: Loop-through BNC
  1.0 Vp-p ±2 dB sync negative, 75 Ω
- Y IN: 1.0 Vp-p ±2 dB sync negative, 75 Ω
- C IN: 0.3Vp-p ±2 dB (PAL), 75 Ω or
  Burst 0.286 Vp-p ±2 dB (NTSC), 75 Ω
- Y/C IN: Loop-through Mini DIN 4-pin
- Y: 1.0 Vp-p ±2 dB sync negative, 75 Ω
- C: 0.3 Vp-p ±2 dB (PAL), 75 Ω or
  Burst 0.286 Vp-p ±2 dB (NTSC), 75 Ω

Input A: BNC × 5
- Analog RGB/Component:
  - R/R-Y: 0.7 Vp-p ±2 dB positive, 75 Ω
  - G: 0.7 Vp-p ±2 dB positive, 75 Ω,
  - G with sync/Y: 1.0 Vp-p ±2 dB sync negative, 75 Ω
  - B/B-Y: 0.7 Vp-p ±2 dB positive, 75 Ω
  - Sync/HD:
    Composite sync: 0.6 to 8.0 Vp-p, high impedance, positive/negative
    Horizontal sync: 0.6 to 8.0 Vp-p, high impedance, positive/negative
  - VD:
  - Vertical sync: 0.6 to 8.0 Vp-p, high impedance, positive/negative
- HDTV*3 (Y/PB/PR):
  - Y: 1.0 Vp-p ±2 dB, 75 Ω
  - PB/PR: Tri-level sync: ±0.3 Vp-p, Bi-level sync: 0.3 Vp-p
    ±0.35 Vp-p ±2 dB, 75 Ω
- HDTV*3 (GBR):
  - G with sync: 1.0 Vp-p ±2 dB, 75 Ω
    Tri-level sync: ±0.3 Vp-p, Bi-level sync: 0.3 Vp-p
  - B/R: 0.7 Vp-p ±2 dB, 75 Ω

Input B:
- Supplied with an IFB-40:
  14-pin multi connector (input: male, output: female)

CONTROL S IN/ PLUG IN POWER: Stereo mini-jack
5.0 Vp-p, plug in power DC 5 V, maximum output 60 mA
- OUT: Stereo mini-jack
  5.0 Vp-p

REMOTE
- RS-422A: D-sub 9-pin (female)

ABL Link
- IN: Mini-jack
- OUT: Mini-jack

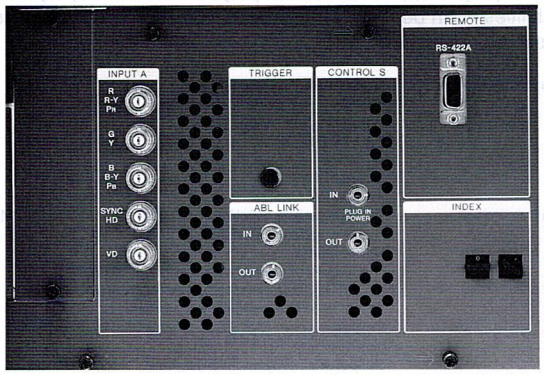
TRIG: Mini-jack
Power On: DC 5 V, output impedance 4.7 kΩ
Power Off: 0 V

Safety regulations EN60 950 (TÜV), CE, PTB, C-Tick Mark

*1 Some items are not available in some areas. For details, please consult your nearest Sony office.
*2 ANSI lumens is a measuring method of American National Standards Institute IT 7.215.
*3 HDTV: 1125/60 interlaced HDTV studio standard system.
*4 With the optional IFB-G70QMG installed in the VPH-G70QMG.

VPH-G70VRM*1 (PAL/NTSC/SECAM/NTSC4.43/PAL-M)

•Designed specifically for use in Virtual Reality and Simulation applications •Deep focussing area, high resolution lenses, and extended geometry for use with curved and dome-style screens •Multiscan capability: horizontal 15 kHz to 110 kHz, vertical 38 Hz to 150 Hz •Accepts composite and S Video signals when an appropriate optional interface board is installed •Incorporates newly developed 8-inch electromagnetic focus CRTs •Incorporates a universal optical coupling •High resolution of 700 TV lines (video)/1100 TV lines (HDTV*2)/1700 × 1200 pixels (RGB measured at fH: 74 kHz, fV: 60 Hz) •Wide RGB bandwidth of 120 MHz •New hybrid HACC lens for superb, stable picture performance •Precise registration with the Key/Pin balance mode and 25-point zone adjustment •Input memory and Video memory available for facilitated set up •Independent brightness and colour uniformity adjustments •Incorporates the picture orbiting function •Simplified operation for multi-projection applications such as ABL link and Index operation functions •Optional internal line-doubler board available •Video decoder circuit for enhanced video picture quality •Various optional accessories available for system versatility •Can be used with screens from 60 to 300 inches in size with simple adjustments •Black cabinet suitable for Virtual Reality and Simulation installations



Supplied accessories:
- Remote commander RM-PJ1000
- Remote commander cable (15 m)
- Adjustment plate
- AA size (R6) battery (3)
- AC power cord
- Operation manual
- Installation manual

Optional accessories:
- Interface board IFB-12/20/21/40/50/1000/1400
- Signal interface cable SIC-10/20A/20B/20C/21/22*1
- CCQ-BRS cable (14-14pin: 2/5/10/25/50 m)
- SIC-M cable (14-14pin: 1/5/15/25/50 m)
- Signal interface switcher PC-1271M
- Extension board EXB-DS10 (internal line-doubler board)
- Interface unit IFU-1271M
- Suspension support PSS-70
- Suspension support PSS-10
- Remote commander RM-PJM800
- Infrared remote control receiver RM-PJ10
- Mouse receiver RM-PJ21
- Signal adaptor ADP-10 (HD D-sub 15-pin to D-sub 9-pin)
- Signal adaptor ADP-20 (Macintosh® to VGA)
- Monitor cable SMF-400 (HD D-sub 15-pin to 5 BNC)
- Monitor cable SMF-401 (HD D-sub 15-pin to HD D-sub 15-pin)
- 9-pin remote cable RCC-5G/10G/30G (D-sub 9-pin to D-sub 9-pin for RS-422A)
- 100-inch flat screen VPS-100FH*1
- 120-inch flat screen VPS-120FH*1

Specifications

Optical

Projection system:	3 picture tubes, 3 lenses, direct projection system
Picture tube:	8-inch (phosphor size 6-inch) high luminance, optical doubled, electromagnetic focus tubes
Projection lens:	Double focus, F1.2/135 mm (colour purity improved: C element of Red/Green)
Screen coverage*3:	60 to 300 inches (viewable area, measured diagonally) (factory preset to 120 inches)
Acceptable screen radius:	Flat to 2500 mm radius
Acceptable throw angle:	-2 ° to +30 °
Light output:	ANSI*4: 200 lm (fH: 110 kHz, fV: 60 Hz, 6500K) ANSI*4: 170 lm (fH: 15 kHz, fV: 60 Hz, 6500K) Peak white: 1000 lm, All white: 290 lm
Throwing distance:	60-inch 1668 mm (5 ft 5 21/32 inches) 70-inch 1921 mm (6 ft 3 5/8 inches) 100-inch 2689 mm (8 ft 9 7/8 inches) 120-inch 3200 mm (10 ft 5 31/32 inches) 150-inch 3972 mm (13 ft 3/8 inches) 200-inch 5254 mm (17 ft 2 27/32 inches) 250-inch 6539 mm (21 ft 5 7/16 inches) 300-inch 7831 mm (25 ft 8 5/16 inches)

Signals

Colour system:	PAL, NTSC, SECAM, NTSC4.43, PAL-M (automatically selected)
Resolution:	700 TV lines (video), 1100 TV lines (HDTV) 1700 × 1200 pixels (RGB, measured at fH: 74 kHz, fV: 60 Hz)
Scanning frequency:	Horizontal: 15 to 110 kHz Vertical: 38 to 150 Hz
RGB bandwidth:	120 MHz (-3 dB)

General

Power requirements:	AC 220 to 240 V, 50/60 Hz
Power consumption:	720 W, Standby: 7 W
Heat dissipation:	2457.0 BTU
Operating temperature:	0 to 40 °C (32 to 104 °F)
Operating humidity:	35 to 85%
Storage temperature:	-20 to 60 °C (-4 to 140 °F)
Storage humidity:	10 to 90%
Dimensions:	695 (W) × 358 (H) × 948 (D) mm (27 3/8 × 14 1/8 × 37 5/16 inches)
Mass:	Approx. 83 kg (183 lb)

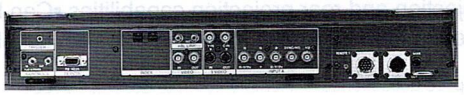
Inputs/Outputs

Input A	
Analogue RGB/Component: BNC	
R/R-Y:	0.7 Vp-p ±2 dB positive, 75 Ω terminated
G/Y:	0.7 Vp-p ±2 dB positive, 75 Ω terminated
G with sync:	1.0 Vp-p ±2 dB sync negative, 75 Ω terminated
B/B-Y:	0.7 Vp-p ±2 dB positive, 75 Ω terminated
Sync/HD	
Composite sync:	0.6 to 8.0 Vp-p, high impedance, sync positive/negative
Horizontal sync:	0.6 to 8.0 Vp-p, high impedance, sync positive/negative
VD:	
Vertical sync:	0.6 to 8.0 Vp-p, high impedance, sync positive/negative
HDTV*2 (Y/PB/PR):	BNC
Y:	1.0 Vp-p ±2 dB, 75 Ω terminated
PB/PR:	Tri-sync: ±0.3 Vp-p, bi-sync: 0.3 Vp-p ±0.35 Vp-p ±2 dB, 75 Ω
HDTV*2 (GBR):	BNC
G with sync:	1.0 Vp-p ±2 dB, 75 Ω terminated Tri-sync: ±0.3 Vp-p, Bi-level sync: 0.3 Vp-p
B/R:	0.7 Vp-p ±2 dB, 75 Ω terminated
Input B:	Open slot for optional IFB board
CONTROL S IN/ PLUG IN POWER:	Stereo mini-jack 5.0 Vp-p, Plug in power DC 5 V, Max. output: 60 mA
CONTROL S OUT:	Stereo mini-jack 5.0 Vp-p
REMOTE	
RS-422A:	D-sub 9-pin (female)
ABL Link	
IN:	Mini-jack
OUT:	Mini-jack
TRIG:	Mini-jack Power On: DC 12 V, output impedance 4.7 kΩ Power Off: 0 V
Safety regulations	EN 60 950 (TÜV), CE, PTB

*1 Some items are not available in some areas. For details, please consult your nearest Sony office.
*2 HDTV: 1125/60 interlaced HDTV studio standard system.
*3 Throw angle: 15.2°, screen radius = 0 mm.
*4 ANSI lumens is a measuring method of American National Standards Institute IT7.215.

VPH-D50QM*1 (PAL/NTSC/SECAM/NTSC4.43/PAL-M)

•Multiscan capability: horizontal 15 kHz to 64 kHz, vertical 38 Hz to 150 Hz •Incorporates newly developed 7-inch static focus CRTs •Incorporates an universal air coupling •Remarkable light output of ANSI lumens*2 (colour temperature: 6500°K): 160 lm (fH: 64 kHz, fV: 50 Hz)/130 lm (fH: 15 kHz, fV: 60 Hz), Peak white: 800 lm •High resolution of 700 TV lines (video)/1000 TV lines (HDTV*3)/1280 x 1024 pixels (RGB in at fH: 64 kHz, fV: 60 Hz) •Wide RGB bandwidth of 75 MHz •Precise registration with the Key/Pin balance mode •Input memory and Video memory available for facilitated set up •Video decoder circuit for enhanced video picture quality •Incorporates the Picture orbiting function •Simplified operation for multi-projection applications such as ABL link and Index operation functions •Optional internal line-doubler board available •Various optional accessories available for system versatility •Desk top mounted projection, ceiling mounted projection, floor mounted projection and rear projection capabilities •Can be used with screens from 60 to 250 inches in size with simple adjustments



Supplied accessories:	Remote commander RM-PJ1000 Remote commander cable (15m) Adjusting plate AA size (R6) battery × 3 AC power cord Operation manual Installation manual
Optional accessories:	Interface board IFB-12/20/21/1000/1301/1400 Signal interface cable SIC-10/20A/20C/21/22 Multi-cable*1 CCQ-BRS cable (14-14pin: 2/5/10/25/50m) SIC-M cable (14-14pin: 1/5/15/25/50m) Signal interface switcher PC-1271M Extension board EXB-DS10 (internal line-doubler board) Interface unit IFU-1271M*1 Suspension support PSS-70 Suspension support PSS-10 Remote commander RM-PJM800 Infrared remote control receiver RM-PJ10 Mouse receiver RM-PJ21 Signal adaptor ADP-10 (HD D-sub 15-pin to D-sub 9-pin for SIC cable) Signal adaptor ADP-20 (Macintosh® to VGA) Monitor cable SMF-400 (HD D-sub 15-pin to 5BNC) Monitor cable SMF-401 (HD D-sub 15-pin to HD D-sub 15-pin) 9-pin remote cable RCC-5G/10G/30G (D-sub 9-pin to D-sub 9-pin for RS-422A) 100-inch flat screen VPS-100FH*1 120-inch flat screen VPS-120FH*1

Specifications

Optical

Projection system:	3 picture tubes, 3 lenses, direct projection system
Picture tube:	7-inch (phosphor size 5.5-inch) static focus CRT
Projection lens:	Double focus, F1.0/135 mm
Screen coverage:	60 to 250-inch measured diagonally, factory preset to 120-inch
Light output:	ANSI*2: 160 lm (fH: 64 kHz, fV: 50 Hz, 6500K) 130 lm (fH: 15 kHz, fV: 60 Hz, 6500K) 800 lm (peak white) 200 lm (all white)
Throw distance:	60-inch 1902 mm (6 ft 2 7/8 inches) 70-inch 2179 mm (7 ft 1 25/32 inches) 100-inch 3016 mm (9 ft 10 3/4 inches) 120-inch 3571 mm (11 ft 8 19/32 inches) 150-inch 4424 mm (14 ft 6 3/16 inches) 200-inch 5844 mm (19 ft 2 3/32 inches) 250-inch 7257 mm (23 ft 9 23/32 inches)

Signals

Colour system:	PAL, NTSC, SECAM, NTSC4.43, PAL-M
Resolution:	700 TV lines (video) 1000 TV lines (HDTV) 1280 × 1024 pixels (RGB, measured at fH: 64 kHz, fV: 60 Hz)
Scanning frequency:	Horizontal: 15 to 64 kHz Vertical: 38 to 150 Hz
RGB bandwidth:	75 MHz -3 dB

General

Power requirements:	AC 220 to 240 V, 50/60 Hz
Power consumption:	450 W, Standby: 7 W
Heat dissipation:	1535.7 BTU
Operating temperature:	0 to 40 °C (32 to 104 °F)
Operating humidity:	35 to 85%
Storage temperature:	-20 to 60 °C (-4 to 140 °F)
Storage humidity:	10 to 90%
Dimensions:	603 (W) × 345 (H) × 671 (D) mm (23 3/4 × 13 5/8 × 26 1/2 inches)
Mass:	Approx. 54 kg (119 lb 1 oz)

Inputs/Outputs

Video:	Loop-through BNC 1.0 Vp-p ±2 dB sync negative, 75 Ω
S Video:	
Y IN:	BNC 1.0 Vp-p ±2 dB sync negative, 75 Ω
C IN:	BNC 0.3 Vp-p ±2 dB (PAL), 75 Ω Burst 0.286 Vp-p ±2 dB (NTSC), 75 Ω
Y/C IN:	Loop-through mini DIN 4-pin Y (luminance): 1.0 Vp-p ±2 dB sync negative, 75 Ω C (chrominance): 0.3 Vp-p ±2 dB (PAL), 75 Ω Burst 0.286 Vp-p ±2 dB (NTSC), 75 Ω
Input A:	BNC × 5
Analogue RGB/Component:	
R/R-Y:	0.7 Vp-p ±2 dB positive, 75 Ω
G:	0.7 Vp-p ±2 dB positive, 75 Ω
G with sync/Y:	1.0 Vp-p ±2 dB sync negative, 75 Ω
B/B-Y:	0.7 Vp-p ±2 dB positive, 75 Ω
Sync/HD:	Composite sync: 0.6 to 8.0 Vp-p, high impedance, positive/negative Horizontal sync: 0.6 to 8.0 Vp-p, high impedance, positive/negative
VD:	Vertical sync: 0.6 to 8.0 Vp-p, high impedance, positive/negative
HDTV*3 (Y/PB/PR):	
Y:	1.0 Vp-p ±2 dB, 75 Ω
PB/PR:	Tri-level sync: ±0.3 Vp-p, Bi-level sync: 0.3 Vp-p ±0.35 Vp-p ±2 dB, 75 Ω
HDTV*3(GBR):	
G with sync:	1.0 Vp-p ±2 dB, 75 Ω Tri-level sync: ±0.3 Vp-p, Bi-level sync: 0.3 Vp-p
B/R:	0.7 Vp-p ±2 dB, 75 Ω
Input B:	Supplied with an IFB-40: 14-pin multi connector (input: male, output: female)
CONTROL S IN/ PLUG IN POWER:	Stereo mini-jack 5.0 Vp-p, plug in power DC 5 V, maximum output 60 mA
OUT:	Stereo mini-jack, 5.0 Vp-p
REMOTE	
RS-422A:	D-sub 9 pin (female)
ABL Link	
IN:	Stereo mini-jack
OUT:	Stereo mini-jack
TRIG:	Mini-jack Power On: DC 5 V, output impedance 4.7 kΩ Power Off: 0 V
Safety regulations	EN60 950 (TÜV), CE, PTB, C-Tick Mark

*1 Some items are not available in some areas. For details, please consult your nearest Sony office.
*2 ANSI lumens is a measuring method of American National Standards Institute IT 7.215.
*3 HDTV: 1125/60 interlaced HDTV studio standard system.

VPH-D50HTM (PAL/NTSC/SECAM/NTSC4.43/PAL-M)

•Multiscan capability: horizontal 15 kHz to 64 kHz, vertical 38 Hz to 150 Hz •Incorporates newly developed 7-inch static focus CRTs •Incorporates a universal air coupling •Remarkable light output of ANSI lumens*1 (colour temperature: 6500°K): 160 lm (fH: 64 kHz, fV: 50 Hz)/130 lm (fH: 15 kHz, fV: 60 Hz), Peak white: 800 lm •High resolution of 700 TV lines (video)/1000 TV lines (HDTV*2)/1280 × 1024 pixels (RGB in at fH: 64 kHz, fV: 60 Hz) •Wide RGB bandwidth of 75 MHz •Precise registration with the Key/Pin balance mode •Input memory and Video memory available for facilitated set up •Video decoder circuit for enhanced video picture quality •Incorporates the picture orbiting function •Simplified operation for multi-projection applications such as ABL link and Index operation functions •Internal line-doubler board included as a standard feature •Various optional accessories available for system versatility •Table-top projection, ceiling mounted projection, floor mounted projection and rear projection capabilities •Can be used with screens from 60 to 250 inches in size with simple adjustments

Supplied accessories:	Remote commander RM-PJ1001 Remote commander RM-PJD50 Remote commander cable (15 m) Adjustment plate AA size (R6) battery (3) Button battery CR2025 (1) AC power cord Operating manual Installation manual
Optional accessories:	Signal interface cable SIC-10 Interface unit IFU-1271M Suspension support PSS-70 Suspension support PSS-10 Remote commander RM-PJM800 Infrared remote control receiver RM-PJ10 Mouse receiver RM-PJ21 Monitor cable SMF-400 (HD D-sub 15-pin to 5 BNC) Remote cable RCC-5G/10G/30G (D-sub 9-pin to D-sub 9-pin for RS-422A) 100-inch flat screen VPS-100FH*3 120-inch flat screen VPS-120FH*3

Specifications

Optical

Projection system:	3 picture tubes, 3 lenses, direct projection system
Picture tube:	7-inch (phosphor size 5.5-inch) high luminance air coupled (Colour corrected: Red/Green), static focus tubes
Projection lens:	Double focus, F1.0/135 mm
Screen coverage:	60 to 250 inches measured diagonally (factory preset to 100 inches)
Light output:	ANSI*1: 160 lm (fH: 64 kHz, fV: 50 Hz, 6500K) ANSI*1: 130 lm (fH: 15 kHz, fV: 60 Hz, 6500K) Peak white: 800 lm All white: 200 lm
Throw distance: (in 4:3 mode)	60-inch 1902 mm (6 ft 2 7/8 inches) 70-inch 2179 mm (7 ft 1 25/32 inches) 100-inch 3016 mm (9 ft 10 3/4 inches) 120-inch 3571 mm (11 ft 8 19/32 inches) 150-inch 4424 mm (14 ft 6 3/16 inches) 200-inch 5844 mm (19 ft 2 3/32 inches) 250-inch 7257 mm (23 ft 9 23/32 inches)

Signals

Colour system:	PAL, NTSC, SECAM, NTSC4.43, PAL-M
Resolution:	700 TV lines (video) 1000 TV lines (HDTV) 1280 × 1024 pixels (RGB, measured at fH: 64 kHz, fV: 60 Hz)
Scanning frequency:	Horizontal: 15 to 64 kHz Vertical: 38 to 150 Hz
RGB bandwidth:	75 MHz (-3 dB)

General

Power requirements:	AC 220 to 240 V, 50/60 Hz
Power consumption:	450 W, Standby: 7 W
Heat dissipation:	1535.7 BTU
Operating temperature:	0 to 40 °C (32 to 104 °F)
Operating humidity:	35 to 85%
Storage temperature:	-20 to 60 °C (-4 to 140 °F)
Storage humidity:	10 to 90%

Dimensions:	603 (W) × 345 (H) × 671 (D) mm (23 3/4 × 13 5/8 × 26 1/2 inches)
Mass:	Approx. 54 kg (119 lb 1 oz)

Inputs/Outputs

Video	
Composite:	Loop-through BNC 1.0 Vp-p ±2 dB sync negative, 75 Ω automatic termination
Y IN:	BNC, 1.0 Vp-p ±2 dB sync negative, 75 Ω terminated
C IN:	BNC, 0.3 Vp-p ±2 dB (PAL), 75 Ω terminated or Burst 0.286 Vp-p ±2 dB (NTSC), 75 Ω terminated
Y/C IN:	Loop-through Mini DIN 4-pin
Y:	1.0 Vp-p ±2 dB sync negative, 75 Ω automatic termination
C:	0.3 Vp-p ±2 dB (PAL), 75 Ω automatic termination or Burst 0.286 Vp-p ±2 dB (NTSC), 75 Ω automatic termination
Input A/B	
Analogue RGB/Component: BNC	
R/R-Y:	0.7 Vp-p ±2 dB positive, 75 Ω terminated
G/Y:	0.7 Vp-p ±2 dB positive, 75 Ω terminated
G with sync:	1.0 Vp-p ±2 dB sync negative, 75 Ω terminated
B/B-Y:	0.7 Vp-p ±2 dB positive, 75 Ω terminated
Sync/HD	
Composite sync:	0.6 to 8.0 Vp-p, high impedance, sync positive/negative
Horizontal sync:	0.6 to 8.0 Vp-p, high impedance, sync positive/negative
VD	
Vertical sync:	0.6 to 8.0 Vp-p, high impedance, sync positive/negative
HDTV*2 (Y/PB/PR):	BNC
Y:	1.0 Vp-p ±2 dB, 75 Ω terminated
PB/PR:	Tri- sync: ±0.3 Vp-p, bi-sync: 0.3 Vp-p ±0.35 Vp-p ±2 dB, 75 Ω
HDTV*2 (GBR):	BNC
G with sync:	1.0 Vp-p ±2 dB, 75 Ω terminated Tri-sync: ±0.3 Vp-p, bi-sync: 0.3 Vp-p
B/R:	0.7 Vp-p ±2 dB, 75 Ω terminated
Video (YC)*4	
Y:	BNC, 1.0 Vp-p ±2 dB sync negative, 75 Ω terminated
C:	BNC, 0.3 Vp-p ±2 dB (PAL), 75 Ω terminated or Burst 0.286 Vp-p ±2 dB (NTSC), 75 Ω terminated
Video (Composite)*4	
VIDEO:	1.0 Vp-p ±2 dB sync negative, 75 Ω automatic termination
CONTROL S IN/ PLUG IN POWER:	Stereo mini-jack 5.0 Vp-p, Plug in power DC 5 V, Max. output 60 mA
CONTROL S OUT:	Stereo mini-jack 5.0 Vp-p
REMOTE	
RS-422A:	D-sub 9 pin (female)
ABL Link	
IN:	Mini-jack
OUT:	Mini-jack
TRIG:	Mini-jack Power On: DC 12 V, output impedance 4.7 kΩ Power Off: 0 V
Safety regulations	EN 60 950 (TÜV), CE, PTB

*1 ANSI lumens is a measuring method of American National Standards Institute IT 7.215.
*2 HDTV: 1125/60/2:1 and 1125/59.94/2:1 (SMPTE-240M/274M) HDTV systems.
*3 Some items are not available in some areas. For details, please consult your nearest Sony office.
*4 Input B only.

RVP-511DMS (PAL/NTSC/SECAM/NTSC4.43)

•50-inch projection wall unit for various projection wall applications •Light in weight (88 kg) and a short cabinet depth (1236 mm) for easier handling and stacking •Input capability: double scan video signals and computer signals which conform to VGA mode 3 (31.469 kHz/59.94 Hz) standard •Optional PWB-411D video input board available for composite, Y/C, component and 15 kHz RGB video signals •Double scan capability for flicker free signal reproduction when using with the optional PWB-411D video input board •Adopts optical coupling CRT for high contrast image display •Colour temperature selection: 3200K/6500K/9300K/User preset (factory preset: 6500K) •Two-part construction enables the CRT assembly, together with the electronic chassis, to be easily separated from the cabinet •Wide viewing angle: horizontal 150 degrees, vertical 70 degrees •Optional VPS-515RF/511RF screens with ultra-thin screen surround are available •Optional CHP-411DM projection wall chassis available for system versatility •Optional wired/wireless remote control unit RM-PJ1292*1 with address function for all projector control functions, including inputs selection, picture control, RGB size and shift and centering controls

Supplied Accessories:
- AC power cord (1)
- Remote control cable (1.2 m × 1)
- Operation manual (1)

Optional Accessories:

VPS-515RF:	Optional Screen with 0.2 mm screen surround
VPS-511RF:	Optional Screen with 1.7 mm screen surround
PWK-411D:	System Control Kit (Including RM-PJ1292 Remote Commander and installation manual)
PWB-411D:	Video Input Board
PWR-B511A:	Base Stand
PWR-P512A:	Position Beam for dual mount
PWR-P513A:	Position Beam for triple mount
RM-PJ10:	Remote Control Receiver
RCC-1W2:	9-pin remote cable (D-sub 9-pin M to D-sub 9-pin M for RS-422)

Specifications

Optical

Projection System:	3 picture tubes, 3 lenses, rear projection
Picture Tube:	7.7-inch (5.5-inch raster size) high-luminance monochrome optical coupled with sealed coolant
Projection Lens:	High performance lens, F1.1/77 mm
Screen:	Optional (See Optional Accessories)
Light Output*2:	ANSI*3: 125 cd/m² (fH: 31.5 kHz, fV: 60Hz) Colour temperature: 6500°K Peak white: 977 cd/m²

Electrical

Scan Frequency:	31.25 kHz/50 Hz/1:1, 31.25 kHz/100 Hz/2:1 31.5 kHz/60 Hz/1:1, 31.5 kHz/120 Hz/2:1 (Horizontal Frequency/Vertical Frequency/Interlace Ratio)
Resolution:	1000 × 580 dots (measured at RGB 31.25 kHz input)
RGB Bandwidth:	30 MHz (-3 dB)
Test Signal:	Cross hair, Hatch (fine), Diagonal hatch, Circle hatch, Dot pattern, H pattern, ME, Window, All white (100 IRE), Black
Input:	RGB: BNC × 5
31 kHz:	R: 0.7 Vp-p ±2 dB, 75 Ω G: 0.7 Vp-p ±2 dB, 75 Ω G on sync: 1.0 Vp-p ±2 dB, 75 Ω, sync negative B: 0.7 Vp-p ±2 dB, 75 Ω H sync/C sync: 1.0 to 4.0 Vp-p, 75 Ω, positive/negative V sync: 1.0 to 4.0 Vp-p, 75 Ω, positive/negative
15 kHz:	*Available when an optional PWB-411D Video Input Board is inserted. See PWB-411D specifications.
Control-S:	Mini Jack (mono)
Remote:	RS-422: D-sub 9-pin connector (female) Linked ABL: Mini Jack (mono)
Output:	
Control-S:	Mini Jack (mono)
Remote:	RS-422: D-sub 9-pin connector (female) Linked ABL: Mini Jack (mono)

General

Power Supply:	AC 200 to 240 V, 50/60 Hz
Power Consumption:	200 to 240 V, 1.4 A, 300 W
Dimensions (max.):	1018 (W) × 781 (H) × 1236 (D) mm (40⅛ × 30¾ × 48¾ inches)
Mass:	88 kg (194 lb)

*1 RM-PJ1292 is included in the system control kit PWK-411D.
*2 In the case of the RVP-511DMS with the VPS-511RF optional screen.
*3 ANSI lumens is a measuring method of the American National Standards Institute IT 7.215.

RVP-411DMS (PAL/NTSC/SECAM/NTSC4.43)

•41-inch projection wall unit for various projection wall applications •Light in weight (75 kg) and a short cabinet depth (1044 mm) for easier handling and stacking •Input capability: double scan video signals and computer signals which conform to VGA mode 3 (31.469 kHz/59.94 Hz) standard •Optional PWB-411D video input board available for composite, Y/C, component and 15 kHz RGB video signals •Double scan capability for flicker free signal reproduction when using with the optional PWB-411D video input board •Adopts optical coupling CRT for high contrast image display •Colour temperature selection: 3200K/6500K/9300K/User preset (factory preset: 6500K) •Two-part construction enables the CRT assembly, together with the electronic chassis, to be easily separated from the cabinet •Wide viewing angle: horizontal 160 degrees, vertical 60 degrees •Optional VPS-415RF/411RF screens with ultra-thin screen surround are available •Optional CHP-411DM projection wall chassis available for system versatility •Optional wired/wireless remote control unit RM-PJ1292*1 with address function for all projector control functions, including inputs selection, picture control, RGB size and shift and centering controls

Supplied Accessories:
- AC power cord (1)
- Remote control cable (1.2 m × 1)
- Operation manual (1)

Optional Accessories:

VPS-415RF:	Optional Screen with 0.2 mm screen surround
VPS-411RF:	Optional Screen with 0.2 mm screen surround
PWK-411D:	System Control Kit (Including RM-PJ1292 Remote Commander and installation manual)
PWB-411D:	Video Input Board
PWR-B411A:	Base Stand
PWR-P412A:	Position Beam for dual mount
PWR-P413A:	Position Beam for triple mount
RM-PJ10:	Remote Control Receiver
RCC-1W2:	9-pin remote cable (D-sub 9-pin M to D-sub 9-pin M for RS-422)

Specifications

Optical

Projection System:	3 picture tubes, 3 lenses, rear projection
Picture Tube:	7.7-inch (5.5-inch raster size) high-luminance monochrome optical coupled with sealed coolant
Projection Lens:	High performance lens, F1.1/77 mm
Screen:	Optional (See Optional Accessories)
Light Output*2:	ANSI*3: 280 cd/m² (fH: 31.5 kHz, fV: 60 Hz) Colour temperature: 6500°K Peak white: 2056 cd/m²

Electrical

Scan Frequency:	31.25 kHz/50 Hz/1:1, 31.25 kHz/100 Hz/2:1 31.5 kHz/60 Hz/1:1, 31.5 kHz/120 Hz/2:1 (Horizontal Frequency/Vertical Frequency/Interlace Ratio)
Resolution:	800 × 580 dots (measured at RGB 31.25 kHz input)
RGB Bandwidth:	30 MHz (-3 dB)
Test Signal:	Cross hair, Hatch (fine), Diagonal hatch, Circle hatch, Dot pattern, H pattern, ME, Window, All white (100 IRE), Black
Input:	RGB: BNC × 5
31 kHz:	R: 0.7 Vp-p ±2 dB, 75 Ω G: 0.7 Vp-p ±2 dB, 75 Ω G on sync: 1.0 Vp-p ±2 dB, 75 Ω, sync negative B: 0.7 Vp-p ±2 dB, 75 Ω H sync/C sync: 1.0 to 4.0 Vp-p, 75 Ω, positive/negative V sync: 1.0 to 4.0 Vp-p, 75 Ω, positive/negative
15 kHz:	*Available when an optional PWB-411D Video Input Board is inserted. See PWB-411D specifications.
Control-S:	Mini Jack (mono)
Remote:	RS-422: D-sub 9-pin connector (female) Linked ABL: Mini Jack (mono)
Output:	
Control-S:	Mini Jack (mono)
Remote:	RS-422: D-sub 9-pin connector (female) Linked ABL: Mini Jack (mono)

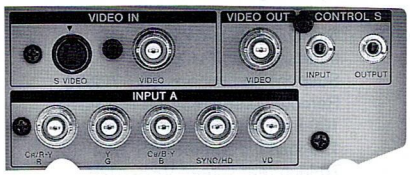
General

Power Supply:	AC 200 to 240 V, 50/60 Hz
Power Consumption:	200 to 240 V, 1.4 A, 300 W
Dimensions (max.):	830 (W) × 641 (H) × 1044 (D) mm (32¾ × 25¼ × 41⅛ inches)
Mass:	75 kg (165 lb 6 oz)

*1 RM-PJ1292 is included in the system control kit PWK-411D.
*2 In the case of the RVP-411DMS with the VPS-411RF optional screen.
*3 ANSI lumens is a measuring method of the American National Standards Institute IT 7.215.

VPH-V22M*1 (PAL/NTSC/SECAM/NTSC4.43)

•Remarkable light output of 700 lm(peak white) •Adopts high quality performance HACC lens •Accepts Component (Y/R-Y/B-Y or RGB), Y/C and Composite Video signals •A high resolution of 700 TV lines (composite video)/1000 TV lines(RGB) •Supplied remote control unit RM-PJV20 controls all projector functions •Desk top mounted projection, ceiling mounted projection, floor mounted projection and rear projection capabilities •Can be used with a screen from 70 to 250 inches in size with simple adjustment



Supplied accessories:	Remote commander RM-PJV20 AA size batteries (2) AC power cord Spacer for 508 cm (200-inch) front projection Spacer (0.2 mm) for 254 cm (70 to 100-inch) rear projection Spacer (0.8 mm) for 254 cm (70 to 100-inch) rear projection Operating manual Installation manual
Optional accessories:	Signal interface cable SIC-10 Interface unit: IFU-1271M Suspension support: PSS-722/10 Remote control receiver RM-PJ10 100-inch flat screen VPS-100FH*1 120-inch flat screen VPS-120FH*1 70-inch rear screen VPS-702R

Specifications

Optical

Projection system:	3 picture tubes, 3 lenses, direct projection system
CRT:	7-inch (Phosphor size: 5.5-inch) liquid cooled high brightness monochrome tubes
Projection lens:	HACC (High-resolusion Aspherical and Colour Corrected) lens F1.0/135 mm
Screen	70-inch (177.8 cm) to 250-inch (635 cm) measured diagonally (Factory preset: 100-inch (254 cm))
Light output:	ANSI*2 100 lm (15 kHz: 60Hz, 6500 K) Peak white: 700 lm, All white: 140 lm
Throwing distance:	100-inch: 3301 mm (Approx. 11 ft) 200-inch: 6417 mm (Approx. 21 ft)

Signals

Colour system:	PAL, NTSC, SECAM, NTSC4.43*3 automatically selected
Resolution:	700 TV lines (Composite video input) 1000 TV lines (RGB input)
Test signals:	Cross hair

General

Power requirements:	220 V AC to 240 V AC, 50/60 Hz
Power consumption:	210 W
Operating temperature:	0 to 40 °C (14 to 104 °F)
Operating humidity:	35 to 85%
Storage temperature:	-20 to 60 °C (-4 to 140 °F)
Storage humidity:	10 to 90%
Dimensions:	532 (W) × 288 (H) × 597 (D) mm (21 × 11⅜ × 23⅝ inches)
Mass:	Approx. 38 kg (83 lb 12 oz)
Heat dispersion:	716.6 BTU

Inputs/Outputs

VIDEO IN:	
Video*4:	BNC 1.0 Vp-p ±2 dB, sync negative, 75 Ω
S video*4:	Mini DIN 4-pin Y (luminance): 1.0 Vp-p ±2 dB, sync negative, 75 Ω C (chrominance): 0.3 Vp-p ±2 dB (PAL), 75 Ω or Burst 0.286 Vp-p ±2 dB (NTSC), 75Ω
VIDEO OUT:	
Video:	BNC 1.0 Vp-p ±2 dB, 75 Ω
INPUT A:	
Analogue RGB/Component:	
BNC	
R/R-Y:	0.7 Vp-p ±2 dB, positive, 75 Ω
G:	0.7 Vp-p ±2 dB, positive, 75 Ω
G with Sync/Y:	1.0 Vp-p ±2 dB, sync negative, 75 Ω
B/B-Y:	0.7 Vp-p ±2 dB, positive, 75 Ω
SYNC/HD:	
Composite sync:	0.6 to 8.0 Vp-p, high impedance negative
Horizontal sync:	0.6 to 8.0 Vp-p, high impedance negative
VD:	
Vertical sync:	0.6 to 8.0 Vp-p, high impedance negative
Control S:	Loop-through Stereo Mini Jack

Safety Regulations: EN60 065 (TÜV), CE, C-Tick, PTB

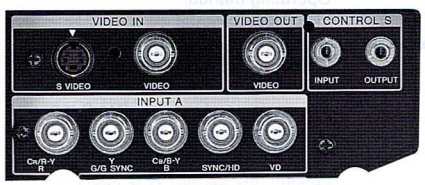
*1 Some items are not available in some areas. For details, please consult your nearest Sony office.
*2 ANSI lumens is a measuring method of American National Standards Institute IT7.215.
*3 The NTSC4.43 system refers to an NTSC colour system in which the subcarrier frequency is modified to 4.43 MHz.
*4 S VIDEO input has priority over Composite video input.

VPH-V20M*1 (PAL/NTSC/SECAM/NTSC4.43)

•Remarkable light output of 700 lm(peak white) •Accepts Component (Y/R-Y/B-Y or RGB), Y/C and Composite Video signals •A high resolution of 700 TV lines (composite video)/1000 TV lines(RGB) •Supplied remote control unit RM-PJV20 controls all projector functions •Desk top mounted projection, ceiling mounted projection, floor mounted projection and rear projection capabilities •Can be used with a screen from 70 to 250 inches in size with simple adjustment

Supplied accessories:
- Remote commander RM-PJV20
- AA size batteries (2)
- AC power cord
- Spacer for 508 cm (200-inch) front projection
- Spacer (0.2 mm) for 254 cm (70 to 100-inch) rear projection
- Spacer (0.8 mm) for 254 cm (70 to 100-inch) rear projection
- Operating manual
- Installation manual

Optional accessories:
- Signal interface cable SIC-10
- Interface unit: IFU-1271M
- Suspension support: PSS-722/10
- Remote control receiver RM-PJ10
- 100-inch flat screen VPS-100FH*1
- 120-inch flat screen VPS-120FH*1
- 70-inch rear screen VPS-702R



Specifications

Optical

Projection system:	3 picture tubes, 3 lenses, direct projection system
CRT:	7-inch (Phosphor size: 5.5-inch) liquid cooled high brightness monochrome tubes
Projection lens:	High performance hybrid multi-coated lens F1.0/130 mm
Screen	70-inch (177.8 cm) to 250-inch (635 cm) measured diagonally (Factory preset: 100-inch (254 cm))
Light output:	ANSI*2 100 lm (15 kHz: 60 Hz, 6500 K) Peak white: 700 lm, All white: 140 lm
Throwing distance:	100-inch (254 cm):3301 mm (Approx. 11 ft) 200-inch (508 cm):6417 mm (Approx. 21 ft)

Signals

Colour system:	PAL, NTSC, SECAM, NTSC4.43*3 automatically selected
Resolution:	700 TV lines (Composite video input) 1000 TV lines (RGB input)
Test signals:	Cross hair

General

Power requirements:	220 V AC to 240 V AC, 50/60 Hz
Power consumption:	210 W
Operating temperature:	0 to 40 °C (14 to 104 °F)
Operating humidity:	35 to 85%
Storage temperature:	-20 to 60 °C (-4 to 140 °F)
Storage humidity:	10 to 90%
Dimensions:	532 (W) × 288 (H) × 597 (D) mm (21 × 11⅜ × 23⅝ inches)
Mass:	Approx. 30 kg (66 lb 2 oz)
Heat dispersion:	716.6 BTU

Inputs/Outputs

VIDEO IN:

Video*4:	BNC 1.0 Vp-p ±2 dB, sync negative, 75 Ω
S video*4:	Mini DIN 4-pin Y (luminance): 1.0 Vp-p ±2 dB, sync negative, 75 Ω C (chrominance): 0.3 Vp-p ±2 dB (PAL), 75 Ω or Burst 0.286 Vp-p ±2 dB (NTSC), 75Ω

VIDEO OUT:

Video:	BNC 1.0 Vp-p ±2 dB, 75 Ω

INPUT A:

Analogue RGB/Component:

BNC	
R/R-Y:	0.7 Vp-p ±2 dB, positive, 75 Ω
G:	0.7 Vp-p ±2 dB, positive, 75 Ω
G with Sync/Y:	1.0 Vp-p ±2 dB, sync negative, 75 Ω
B/B-Y:	0.7 Vp-p ±2 dB, positive, 75 Ω
SYNC/HD:	
Composite sync:	0.6 to 8.0 Vp-p, high impedance negative
Horizontal sync:	0.6 to 8.0 Vp-p, high impedance negative
VD:	
Vertical sync:	0.6 to 8.0 Vp-p, high impedance negative
Control S:	Loop-through Stereo Mini Jack

Safety Regulations:

EN60 065 (TÜV), CE, C-Tick, PTB

*1 Some items are not available in some areas. For details, please consult your nearest Sony office.
*2 ANSI lumens is a measuring method of American National Standards Institute IT7.215.
*3 The NTSC4.43 system refers to an NTSC colour system in which the subcarrier frequency is modified to 4.43 MHz.
*4 S VIDEO input has priority over Composite video input.

VPL-FE100E/FE100M (PAL/NTSC/SECAM/NTSC4.43/PAL-M)

LCD Data Projector

•SXGA resolution LCD (Liquid Crystal Display)-based data projector •Three LCD panels for a total of 3,932,160 pixels (1,310,720 pixels x 3 panels) •Four 120 W UHP lamps •Outstanding light output of 3500 ANSI lumens*1 •Excellent uniformity assured with 3D Digital gamma correction •Exclusive Sony DRC (Digital Reality Creation) generates video pictures with effectively four times the resolution of that from a conventional video signal •Multiscan capability with a built-in scan converter: fH: 15 to 100 kHz, fV:40 to 120 Hz •Power zoom, power focus and picture shift functions for installation flexibility •Graphical on-screen menus with a choice of seven languages for adjustment/operation •Supplied remote commander RM-PJ1001 controls all the projector functions •Wide range of optional lenses available •Can be used with screens from 40 to 500 inches in size •Power saving mode available

Supplied accessories:	Remote commander RM-PJ1001 Remote commander cable (15 m) Size AA (R6) battery (3) AC power cord PJ COM terminator Lens ring Operation manual Installation manual
Optional accessories:	Projector quadruple lamp (for replacement) LMP-Q120 Projector individual lamp LMP-S120 1.3 times zoom standard focus lens VPLL-Z3020 1.3 times zoom standard focus lens VPLL-Z2019 1.6 times zoom long focus lens VPLL-Z2025 1.5 times zoom long focus lens VPLL-Z2039 Fixed long focus lens VPLL-3050 Fixed long focus lens VPLL-2075 Fixed short focus lens VPLL-2014 Fixed short focus lens VPLL-2009 Stack stand (for twin and triple stacking) SU-PJ2000 Suspension support PSS-2000 Suspension support PSS-10 Signal adaptor HD D-sub 15-pin to D-sub 9-pin (for SIC Cable) ADP-10 Signal adaptor Macintosh® to VGA ADP-20 D-sub HD 15-pin to 5 BNC cable SMF-400 D-sub HD 15-pin to D-sub HD 15-pin SMF-401 Interface board IFB-12A/21/50/1000/X2000E Signal interface cable SIC-20A/20C/22 Signal interface switcher PC-3000 9-pin remote cable RCC-5G/10G/30G (for RS-422A) Remote commander RM-PJ3000S*2 Remote control receiver RM-PJ10 100-inch flat screen VPS-100FH*3

Specifications

Optical

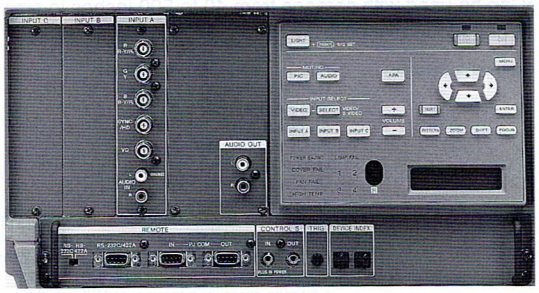
Projection system:	3 LCD panels, 1 lens projection
LCD panel:	1.8-inch TFT LCD panel, 3,932,160 pixels (1,310,720 pixels x3)
Lamp:	120 W UHP lamp (4)
Light output:	3500 ANSI lumens*1
Projection picture size:	40-inch to 500-inch

General

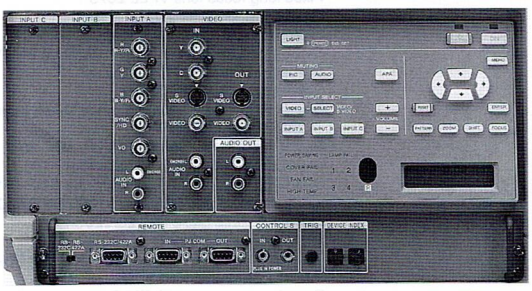
Colour system:	PAL/NTSC/SECAM/NTSC4.43/PAL-M (automatically selected)
Resolution:	Video: 600 TV lines RGB: 1280 x 1024 pixels
Scanning frequency:	fH: 15 kHz to 100 kHz fV: 40 Hz to 120 Hz Display area: >6.4 µsec
Speaker:	5 W stereo
Power requirements:	AC 220 to 240 V, 50/60 Hz
Power consumption:	Max: 770 W (approx.), Standby: 20 W
Heat dissipation:	2628 BTU
Dimensions:	562 (W) × 237 (H) × 649 (D) mm (22¼ × 9⅜ × 25⅝ inches)
Mass:	Approx. 34.5 kg (75 lb 14 oz)
Operating temperature:	0 to 40 °C (32 to 104 °F)
Operating humidity:	35 to 85% (no condensation)
Storage temperature:	-20 to 60 °C (-4 to 140 °F)
Storage humidity:	10 to 90%

Input/Output

VIDEO IN*4	
Composite video:	Loop-through BNC 1.0 Vp-p ±2 dB sync negative, 75 Ω
S VIDEO IN*4	
Y IN:	BNC 1.0 Vp-p ±2 dB sync negative, 75 Ω
C IN:	BNC 0.3 Vp-p ±2 dB (PAL), 75 Ω or Burst 0.286 Vp-p ±2 dB (NTSC), 75 Ω
Y/C IN:	Loop-through Mini DIN 4-pin
Y(luminance):	1.0 Vp-p ±2 dB sync negative, 75 Ω
C(chrominance):	0.3 Vp-p ±2 dB (PAL), 75 Ω or Burst 0.286 Vp-p ±2 dB (NTSC), 75 Ω
AUDIO IN*4:	Phono, stereo, 500 mV rms, impedance more than 47 kΩ



VPL-FE100E



VPL-FE100M

INPUT A	
Analogue RGB/Component:	BNC × 5
R/R-Y:	0.7 Vp-p ±2 dB positive, 75 Ω
G:	0.7 Vp-p ±2 dB positive, 75 Ω
G with sync/Y:	1.0 Vp-p ±2 dB sync negative, 75 Ω
B/B-Y:	0.7 Vp-p ±2 dB positive, 75 Ω
SYNC/HD	
Composite sync:	0.6 to 8.0 Vp-p high impedance, sync positive/negative
Horizontal sync:	0.6 to 8.0 Vp-p high impedance, sync positive/negative
VD	
Vertical sync:	0.6 to 8.0 Vp-p high impedance, sync positive/negative
HDTV*5 ($Y/P_B/P_R$):	BNC
Y:	1.0 Vp-p ±2 dB positive, 75 Ω, Tri-level sync: ±0.3 Vp-p Bi-level sync: 0.3 Vp-p
P_B/P_R:	±0.35 Vp-p ±2 dB positive, 75 Ω
HDTV*5 (GBR):	BNC
G with sync:	1.0 Vp-p ±2 dB, 75 Ω, Tri-level sync: ±0.3 Vp-p Bi-level sync: 0.3 Vp-p
B/R:	0.7 Vp-p ±2 dB positive, 75 Ω
Audio IN:	Phono, stereo, 500 mV rms, impedance more than 47 kΩ
AUDIO OUT:	Phono, Max. 1 V rms when input is 500 mV rms, impedance more than 1 kΩ
INPUT B/C:	Open for optional IFB board
CONTROL S IN/ PLUG IN POWER:	Stereo mini jack 5.0 Vp-p, Plug in power DC 5 V maximum output 60 mA
CONTROL S OUT:	Stereo mini jack 5.0 Vp-p
REMOTE	
RS-232C/RS-422A*6:	D-sub 9-pin (female)
PJ COM*7:	D-sub 9-pin (2) (female)
Trig:	Mini jack Power ON: 12 V, output impedance 4.7 kΩ Power OFF: 0 V

Safety Regulations: EN 60 950 (TÜV), CE, C-tick

*1 ANSI lumens is a measuring method of the American National Standards Institute IT7.228.

*2 Laser Type: Class II
Wavelength: 645 nm
Output: 1 mW

*3 Not available in some areas. For details, please consult your nearest Sony office.

*4 With the optional IFB-X2000E installed in the VPL-FE100E.

*5 The VPL-FE100E/FE100M supports 1125/60/2:1 and 1125/59.94/2:1 (SMPTE-240M/274M) HDTV systems.

*6 RS-232C/RS-422A selectable.

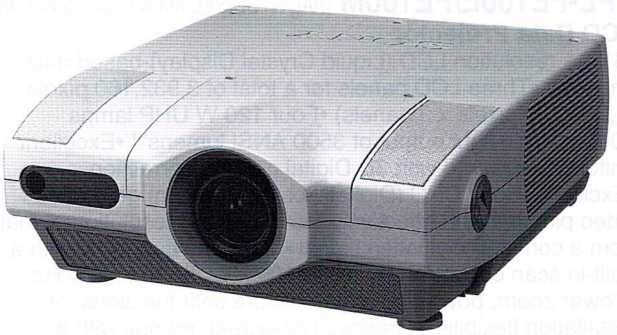
*7 PJ COM complies with RS-485.

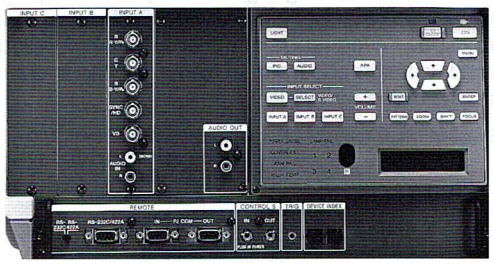
DISPLAY PRODUCTS

VPL-FX200E/FX200M (PAL/NTSC/SECAM/NTSC4.43/PAL-M)

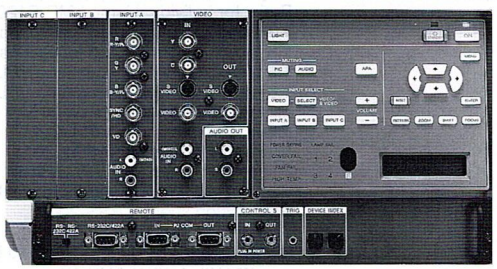
LCD Data Projector

•XGA resolution LCD (Liquid Crystal Display)-based data projector •Three LCD panels for a total of 2,359,296 pixels (786,432 pixels x 3 panels) •Four 120 W UHP lamps •Outstanding light output of 3100 ANSI lumens*1 •Excellent uniformity assured with 3D Digital gamma correction •Exclusive Sony DRC (Digital Reality Creation) generates video pictures with effectively four times the resolution of that from a conventional video signal •Multiscan capability with a built-in scan converter: fH: 15 to 94 kHz, fV:50 to 120 Hz •Power zoom, power focus and picture shift functions for installation flexibility •Graphical on-screen menus with a choice of seven languages for adjustment/operation •Supplied remote commander RM-PJ1001 controls all the projector functions •Six optional lenses available •Can be used with screens from 40 to 500 inches in size •Power saving mode available





VPL-FX200E



VPL-FX200M

Supplied accessories:
- Remote commander RM-PJ1001
- Remote commander cable (15 m)
- Size AA (R6) battery (3)
- AC power cord
- PJ COM terminator
- Lens ring
- Operation manual
- Installation manual

Optional accessories:
- Projector quadruple lamp (for replacement) LMP-Q120
- Projector individual lamp LMP-S120
- 1.3 times zoom standard focus lens VPLL-Z2019
- 1.6 times zoom long focus lens VPLL-Z2025
- 1.5 times zoom long focus lens VPLL-Z2039
- Fixed long focus lens VPLL-2075
- Fixed short focus lens VPLL-2014
- Fixed short focus lens VPLL-2009
- Stack stand (for twin and triple stacking) SU-PJ2000
- Suspension support PSS-2000
- Suspension support PSS-10
- Signal adaptor HD D-sub 15-pin to D-sub 9-pin (for SIC Cable) ADP-10
- Signal adaptor Macintosh® to VGA ADP-20
- D-sub HD 15-pin to 5 BNC cable SMF-400
- D-sub HD 15-pin to D-sub HD 15-pin SMF-401
- Interface board IFB-12A/21/30/1000/50/X2000E
- Signal interface cable SIC-20A/20C/22
- Signal interface switcher PC-3000
- 9-pin remote cable RCC-5G/10G/30G (for RS-422A)
- Remote commander RM-PJ3000S*2
- Remote control receiver RM-PJ10
- 100-inch flat screen VPS-100FH*3

Specifications

Optical

Projection system: 3 LCD panels, 1 lens projection
LCD panel: 1.8-inch TFT LCD panel, 2,359,296 pixels (786,432 pixels x3)
Lamp: 120 W UHP lamp (4)
Light output: 3100 ANSI lumens*1
Projection picture size: 40-inch to 500-inch
Optional projection lenses:

	Throwing distance (unit: mm)		
	40-inch	100-inch	300-inch
VPLL-Z2019 (1.3 times zoom lens)	1,490 - 1,890	3,870 - 4,880	11,820 - 14,840
VPLL-Z2025 (1.6 times zoom lens)	N.A.	5,020 - 7,750	15,430 - 23,580
VPLL-Z2039 (1.5 times zoom lens)	N.A.	7,990 - 11,480	24,300 - 34,760
VPLL-2075 (fixed long focus lens)	N.A.	15,000	44,660
VPLL-2014 (fixed short focus lens)	1,030	2,760	8,520
VPLL-2009 (fixed short focus lens)	640	1,800	5,670

General

Colour system: PAL/NTSC/SECAM/NTSC4.43/PAL-M (automatically selected)
Resolution: Video: 600 TV lines
RGB: 1024 x 768 pixels
Scanning frequency: fH: 15 kHz to 94 kHz
fV: 50 Hz to 120 Hz
Display area: >6.4 µsec
Speaker: 5 W stereo
Power requirements: AC 220 to 240 V, 50/60 Hz
Power consumption: Max: 770 W (approx.), Standby: 20 W
Heat dissipation: 2628 BTU
Dimensions: 562 (W) × 237 (H) × 649 (D) mm (22 1/4 × 9 3/8 × 25 5/8 inches)
Mass: Approx. 34.5 kg (75 lb 14 oz)
Operating temperature: 0 to 40 °C (32 to 104 °F)
Operating humidity: 35 to 85% (no condensation)
Storage temperature: -20 to 60 °C (-4 to 140 °F)
Storage humidity: 10 to 90%

Input/Output

VIDEO IN*4
- Composite video: Loop-through BNC 1.0 Vp-p ±2 dB sync negative, 75 Ω

S VIDEO IN*4
- Y IN: BNC 1.0 Vp-p ±2 dB sync negative, 75 Ω
- C IN: BNC 0.3 Vp-p ±2 dB (PAL), 75 Ω or Burst 0.286 Vp-p ±2 dB (NTSC), 75 Ω
- Y/C IN: Loop-through Mini DIN 4-pin
  - Y(luminance): 1.0 Vp-p ±2 dB sync negative, 75 Ω
  - C(chrominance): 0.3 Vp-p ±2 dB (PAL), 75 Ω or Burst 0.286 Vp-p ±2 dB (NTSC), 75 Ω

AUDIO IN*4: Phono, stereo, 500 mV rms, impedance more than 47 kΩ

INPUT A
- Analogue RGB/Component: BNC × 5
  - R/R-Y: 0.7 Vp-p ±2 dB positive, 75 Ω
  - G: 0.7 Vp-p ±2 dB positive, 75 Ω
  - G with sync/Y: 1.0 Vp-p ±2 dB sync negative, 75 Ω
  - B/B-Y: 0.7 Vp-p ±2 dB positive, 75 Ω
  - SYNC/HD
    - Composite sync: 0.6 to 8.0 Vp-p high impedance, sync positive/negative
    - Horizontal sync: 0.6 to 8.0 Vp-p high impedance, sync positive/negative
  - VD
    - Vertical sync: 0.6 to 8.0 Vp-p high impedance, sync positive/negative
  - HDTV*5 (Y/PB/PR): BNC
    - Y: 1.0 Vp-p ±2 dB positive, 75 Ω, Tri-level sync: ±0.3 Vp-p, Bi-level sync: 0.3 Vp-p
    - PB/PR: ±0.35 Vp-p ±2 dB positive, 75 Ω
  - HDTV*5 (GBR): BNC
    - G with sync: 1.0 Vp-p ±2 dB, 75 Ω, Tri-level sync: ±0.3 Vp-p, Bi-level sync: 0.3 Vp-p
    - B/R: 0.7 Vp-p ±2 dB positive, 75 Ω
  - Audio IN: Phono, stereo, 500 mV rms, impedance more than 47 kΩ

AUDIO OUT: Phono, Max. 1 V rms when input is 500 mV rms, impedance more than 1 kΩ
INPUT B/C: Open for optional IFB board
CONTROL S IN/ PLUG IN POWER: Stereo mini jack 5.0 Vp-p, Plug in power DC 5 V maximum output 60 mA
CONTROL S OUT: Stereo mini jack 5.0 Vp-p
REMOTE
- RS-232C/RS-422A*6: D-sub 9-pin (female)
- PJ COM*7: D-sub 9-pin (2) (female)

Trig: Mini jack, Power ON: 12 V, output impedance 4.7 kΩ, Power OFF: 0 V

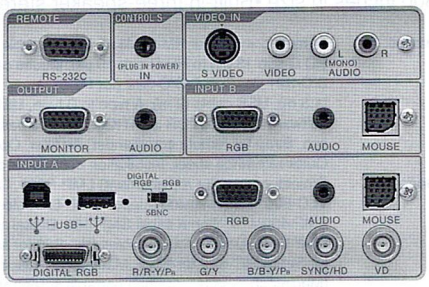
Safety Regulations: EN 60 950 (TÜV), CE, C-tick

*1 ANSI lumens is a measuring method of the American National Standards Institute IT7.228.
*2 Laser Type: Class II, Wavelength: 645 nm, Output: 1 mW
*3 Not available in some areas. For details, please consult your nearest Sony office.
*4 With the optional IFB-X2000E installed in the VPL-FX200E.
*5 The VPL-FX200E/FX200M supports 1125/60/2:1 and 1125/59.94/2:1 (SMPTE-240M/274M) HDTV systems.
*6 RS-232C/RS-422A selectable.
*7 PJ COM complies with RS-485.

VPL-PX30 (PAL/NTSC/SECAM/NTSC4.43/PAL-M/PAL-N)

LCD Data Projector

•XGA resolution LCD (Liquid Crystal Display)-based portable presentation projector •Three TFT LCD panels for a total of 2,359,296 pixels (786,432 pixels x 3) •200 W UHP lamp incorporated (LOW power mode selectable: 150 W) •Brightness of 2400 ANSI lumens*1 •Advanced technologies including 3D Gamma Correction, RGB Enhancer and Digital Keystone for outstanding picture quality •Handles VGA, SVGA, XGA, SXGA*2 with a horizontal frequency of 15 to 91 kHz, composite video, Y/C video, component video and DTV signals*3 •Wide range of input terminals (5 BNC, Monitor out, RS-232C, Digital RGB DFP 20 pin) •USB hub function with PROJECTOR STATION software, Advanced APA (Auto Pixel Alignment) and Digital Zoom for enhanced presentations •Lightweight, compact body •Seven-language on-screen display •Remote commander with laser pointer and mouse control •Desktop, ceiling and rear projection capabilities •Can be used with screens from 40 to 300 inches in size •Built-in three-speaker stereo



Supplied accessories: Remote commander RM-PJM610, Monitor cable SMF-410 (2 m): HD D-sub 15 pin to HD D-sub 15 pin, Mouse cable (2 m): SIC-S21 (for Serial)/SIC-S22 (for PS/2), Audio visual cable (1.5 m), USB cable (2 m): A type to B type, USB application software PROJECTOR STATION, AA size battery (2), Lens cap, Strap for remote commander, Air filter, Operating manual, Quick reference sheet, Installation manual for dealers

Optional accessories: Projector lamp (for replacement) LMP-P200, Carrying case VLC-600*4, Suspension support PSS-610, Monitor cables SMF-400/410, Signal cable SMF-401, Digital signal cables SMF-D102/D110, Mouse cables SIC-S20 for Mac®/SIC-S21 for Serial/SIC-S22 for PS/2, Macintosh® adaptor ADP-20 (Macintosh to VGA), 50-inch portable screen VPS-50C*4, Optional lenses VPLL-FM21 (Fixed short focus lens)/ VPLL-ZM31 (Short focus zoom lens)/VPLL-ZM101 (Long focus zoom lens)

Specifications

Optical

Projection system: 3 LCD panels, 1 lens projection system
LCD panel: 1.3-inch p-Si TFT SONY LCD panel 2,359,296 pixels (786,432 pixels × 3) with Micro Lens Array
Projection lens: Approx. 1.3 times zoom lens, F1.7 to 2.0, f 36.7 to 47.8 mm
Lamp: 200 W Ultra High Performance Lamp
Screen coverage: 40 to 300 inches (measured diagonally)
Light output: 2400 ANSI lumens*1
Throwing distance:
- 40-inch: 1490 to 1820 mm (58¾ to 71¾ inches)
- 60-inch: 2280 to 2780 mm (89⅞ to 109½ inches)
- 80-inch: 3060 to 3740 mm (120½ to 147¼ inches)
- 100-inch: 3850 to 4700 mm (151⅝ to 185⅛ inches)
- 120-inch: 4630 to 5660 mm (182¾ to 222⅞ inches)
- 150-inch: 5810 to 7100 mm (228¾ to 279⅝ inches)
- 200-inch: 7770 to 9500 mm (306 to 374⅛ inches)
- 300-inch: 11700 to 14300 mm (460¾ to 563 inches)

Signals

Colour system: PAL/NTSC/SECAM/NTSC4.43/PAL-M/PAL-N (automatically/manually selected)
Resolution: Video: 750 TV lines, RGB: 1024 × 768 pixels
Acceptable signals: RGB (fH: 15 to 91 kHz, fV: 43 to 85 Hz), 15 kHz component 50/60 Hz system, Progressive component 60 Hz system, DTV (480/60P, 575/50P, 1080/50I, 720/60P, 720/50P) Composite video, Y/C video

General

Cabinet colour: Silky Silver / Turquoise Blue
Speaker: Max. 5 W Wide frequency range 3 speakers
Woofer: 65 mm (2⅝ inches) diameter, Max. 3 W
Tweeter: 45 mm (1¾₁₆ inches) diameter, Max. 1 W × 2 (Stereo)
Power requirements: 100 to 240 V, 50/60 Hz
Power consumption: Max. 290 W, STAND-BY 5 W, Power saving mode 50 W
Operating temperature: 0 to 40 °C (32 to 104 °F)
Operating humidity: 35 to 85%
Dimensions: 339 (W) × 142 (H) × 335 (D) mm (13⅜ × 5⅝ × 13¼ inches)
Mass: Approx. 7.2 kg (15 lb 14 oz)
Heat dissipation: 989.6 BTU
Fan noise: Less than 34 dB (when lamp mode set to LOW: 30 dB)

Inputs/Outputs

VIDEO
- Composite: Phono type, 1.0 Vp-p ±2 dB sync negative, 75 Ω
- Y/C IN: Mini DIN 4-pin
  - Y: 1.0 Vp-p ±2 dB sync negative, 75 Ω
  - C: 0.3 Vp-p ±2 dB (PAL), 75 Ω or Burst 0.286 Vp-p ±2 dB (NTSC), 75 Ω

INPUT A: HD D-sub 15 pin (Female) / 5 BNC (Female) / Digital Interface Switched
- Analogue RGB: HD D-sub 15 pin (Female)
  - R: 0.7 Vp-p ±2 dB positive, 75 Ω
  - G: 0.7 Vp-p ±2 dB positive, 75 Ω
  - G with Sync: 1.0 Vp-p ±2 dB sync negative, 75 Ω
  - B: 0.7 Vp-p ±2 dB positive, 75 Ω
  - SYNC/HD
    - Composite sync: 1.0 to 5.0 Vp-p, high impedance positive/negative
    - Horizontal sync: 1.0 to 5.0 Vp-p, high impedance positive/negative
  - VD
    - Vertical sync: 1.0 to 5.0 Vp-p, high impedance positive/negative
- Analogue RGB/Component: 5 BNC (Female)
  - R/R-Y/PR: 0.7 Vp-p ±2 dB positive, 75 Ω
  - G: 0.7 Vp-p ±2 dB positive, 75 Ω
  - G with Sync/Y: 1.0 Vp-p ±2 dB sync negative, 75 Ω
  - B/B-Y/PB: 0.7 Vp-p ±2 dB positive, 75 Ω
  - SYNC/HD
    - Composite sync: 1.0 to 5.0 Vp-p, high impedance positive/negative
    - Horizontal sync: 1.0 to 5.0 Vp-p, high impedance positive/negative
  - VD
    - Vertical sync: 1.0 to 5.0 Vp-p, high impedance positive/negative
- Digital RGB: DFP 20 pin (TMDS)
- USB HUB: Up (B type: Female) x 1, Down (A type: Female) x 1
- MOUSE IN: Square 13 pin (Female)
- AUDIO IN: Stereo mini jack, 500 mV rms, impedance more than 47 kΩ

INPUT B
- Analog RGB: HD D-sub 15 pin (Female)
  - R: 0.7 Vp-p ±2 dB positive, 75 Ω
  - G: 0.7 Vp-p ±2 dB positive, 75 Ω
  - G with Sync: 1.0 Vp-p ±2 dB sync negative, 75 Ω
  - B: 0.7 Vp-p ±2 dB positive, 75 Ω
  - SYNC/HD
    - Composite sync: 1.0 to 5.0 Vp-p, high impedance positive/negative
    - Horizontal sync: 1.0 to 5.0 Vp-p, high impedance positive/negative
  - VD
    - Vertical sync: 1.0 to 5.0 Vp-p, high impedance positive/negative
- MOUSE IN: Square 13 pin (Female)
- AUDIO IN: Stereo mini jack, 500 mV rms, impedance more than 47 kΩ

OUTPUT
- MONITOR OUT*5: HD D-sub 15 pin (Female) R/R-Y, G/Y, B/B-Y: Gain Unity, 75 Ω SYNC/HD, VD: 4.0 Vp-p (open), 1.0 Vp-p (75 Ω)
- AUDIO OUT: (Variable out) Stereo mini jack, Max. 1 V rms, when the input signal is 500 mV rms, impedance less than 5 kΩ
- REMOTE
  - RS-232C: D-sub 9 pin (Female)
- CONTROL S IN/ PLUG IN POWER: Stereo mini jack 5.0 Vp-p, plug in power, DC 5 V

Safety regulations: UL1950, CSA No.950, DHHS (Laser), FCC Class A, IC Class A, EN 60 950 (Nemko), CE, EN 60 825-1 (Laser), C-Tick, CCIB, VCCI class B, JEIDA (Laser)

Laser beam

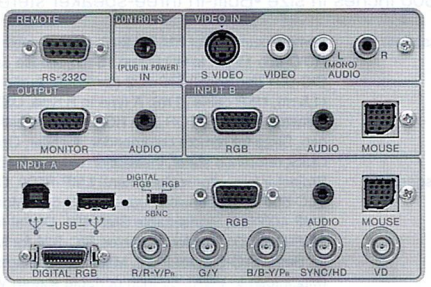
Laser type: Class II
Wavelength: 645 nm
Output: 1 mW

*1 ANSI lumens is a measuring method of the American National Standards Institute IT7.228.
*2 Compressed SXGA signal is reproduced while maintaining the 5:4 aspect ratio.
*3 The VPL-PX30 supports 480/60P, 575/50P, 1080/50I, 720/60P, and 720/50P DTV signals.
*4 Not available in some areas. For details, please consult your nearest Sony office.
*5 DIGITAL RGB signal is not ouput from the MONITOR OUT terminal.

VPL-PX20 (PAL/NTSC/SECAM/NTSC4.43/PAL-M/PAL-N)

LCD Data Projector

•XGA resolution LCD (Liquid Crystal Display)-based portable presentation projector •Three TFT LCD panels for a total of 2,359,296 pixels (786,432 pixels x 3) •200 W UHP lamp incorporated (LOW power mode selectable: 150 W) •Brightness of 1400 ANSI lumens*1 •Advanced technologies including 3D Gamma Correction, RGB Enhancer and Digital Keystone for outstanding picture quality •Handles VGA, SVGA, XGA, SXGA*2 with a horizontal frequency of 15 to 91 kHz, composite video, Y/C video, component video and DTV signals*3 •Wide range of input terminals (5 BNC, Monitor out, RS-232C, Digital RGB DFP 20 pin) •USB hub function with PROJECTOR STATION software, Advanced APA (Auto Pixel Alignment) and Digital Zoom for enhanced presentations •Lightweight, compact body •Seven-language on-screen display •Remote commander with laser pointer and mouse control •Desktop, ceiling and rear projection capabilities •Can be used with screens from 40 to 300 inches in size •Built-in three-speaker stereo



Supplied accessories: Remote commander RM-PJM610, Monitor cable SMF-410 (2 m): HD D-sub 15 pin to HD D-sub 15 pin, Mouse cable (2 m): SIC-S21 (for Serial)/SIC-S22 (for PS/2), Audio visual cable (1.5 m), USB cable (2 m): A type to B type, USB application software PROJECTOR STATION, AA size battery (2), Lens cap, Strap for remote commander, Air filter, Operating manual, Quick reference sheet, Installation manual for dealers

Optional accessories: Projector lamp (for replacement) LMP-P200, Carrying case VLC-600*4, Suspension support PSS-610, Monitor cables SMF-400/410, Signal cable SMF-401, Digital signal cables SMF-D102/D110, Mouse cables SIC-S20 for Mac®/SIC-S21 for Serial/SIC-S22 for PS/2, Macintosh® adaptor ADP-20 (Macintosh to VGA), 50-inch portable screen VPS-50C*4, Optional lenses VPLL-FM21 (Fixed short focus lens)/ VPLL-ZM31 (Short focus zoom lens)/VPLL-ZM101 (Long focus zoom lens)

DISPLAY PRODUCTS

Specifications

Optical

Projection system: 3 LCD panels, 1 lens projection system
LCD panel: 1.3-inch p-Si TFT SONY LCD panel 2,359,296 pixels (786,432 pixels × 3)
Projection lens: Approx. 1.3 times zoom lens, F1.7 to 2.0, f 36.7 to 47.8 mm
Lamp: 200 W Ultra High Performance Lamp
Screen coverage: 40 to 300 inches (measured diagonally)
Light output: 1400 ANSI lumens*1
Throwing distance:
- 40-inch: 1490 to 1820 mm (58¾ to 71¾ inches)
- 60-inch: 2280 to 2780 mm (89⅞ to 109½ inches)
- 80-inch: 3060 to 3740 mm (120½ to 147¼ inches)
- 100-inch: 3850 to 4700 mm (151⅝ to 185⅛ inches)
- 120-inch: 4630 to 5660 mm (182¾ to 222⅞ inches)
- 150-inch: 5810 to 7100 mm (228¾ to 279⅝ inches)
- 200-inch: 7770 to 9500 mm (306 to 374⅛ inches)
- 300-inch: 11700 to 14300 mm (460¾ to 563 inches)

Signals

Colour system: PAL/NTSC/SECAM/NTSC4.43/PAL-M/PAL-N (automatically/manually selected)
Resolution: Video: 750 TV lines, RGB: 1024 × 768 pixels
Acceptable signals: RGB (fH 15 to 91 kHz, fV: 43 to 85 Hz), 15 kHz component 50/60 Hz system, Progressive component 60 Hz system, DTV (480/60P, 575/50P, 1080/50I, 720/60P, 720/50P) Composite video, Y/C video

General

Cabinet colour: Silky Silver / Turquoise Blue
Speaker: Max. 5 W Wide frequency range 3 speakers
Woofer: 65 mm (2⅝ inches) diameter, Max. 3 W
Tweeter: 45 mm (1¾₁₆ inches) diameter, Max. 1 W × 2 (Stereo)
Power requirements: 100 to 240 V, 50/60 Hz
Power consumption: Max. 290 W, STAND-BY 5 W, Power saving mode 50 W
Operating temperature: 0 to 40 °C (32 to 104 °F)
Operating humidity: 35 to 85%
Dimensions: 339 (W) × 142 (H) × 335 (D) mm (13 ⅜ × 5 ⅝ × 13 ¼ inches)
Mass: Approx. 7.2 kg (15 lb 14 oz)
Heat dissipation: 989.6 BTU
Fan noise: Less than 34 dB (when lamp mode set to LOW: 30 dB)

Inputs/Outputs

VIDEO
- Composite: Phono type, 1.0 Vp-p ±2 dB sync negative, 75 Ω
- Y/C IN: Mini DIN 4-pin
  - Y: 1.0 Vp-p ±2 dB sync negative, 75 Ω
  - C: 0.3 Vp-p ±2 dB (PAL), 75 Ω or Burst 0.286 Vp-p ±2 dB (NTSC), 75 Ω

INPUT A: HD D-sub 15 pin (Female) / 5 BNC (Female) / Digital Interface Switched
- Analogue RGB: HD D-sub 15 pin (Female)
  - R: 0.7 Vp-p ±2 dB positive, 75 Ω
  - G: 0.7 Vp-p ±2 dB positive, 75 Ω
  - G with Sync: 1.0 Vp-p ±2 dB sync negative, 75 Ω
  - B: 0.7 Vp-p ±2 dB positive, 75 Ω
  - SYNC/HD
    - Composite sync: 1.0 to 5.0 Vp-p, high impedance positive/negative
    - Horizontal sync: 1.0 to 5.0 Vp-p, high impedance positive/negative
  - VD
    - Vertical sync: 1.0 to 5.0 Vp-p, high impedance positive/negative
- Analogue RGB/Component: 5 BNC (Female)
  - R/R-Y/PR: 0.7 Vp-p ±2 dB positive, 75 Ω
  - G: 0.7 Vp-p ±2 dB positive, 75 Ω
  - G with Sync/Y: 1.0 Vp-p ±2 dB sync negative, 75 Ω
  - B/B-Y/PB: 0.7 Vp-p ±2 dB positive, 75 Ω
  - SYNC/HD
    - Composite sync: 1.0 to 5.0 Vp-p, high impedance positive/negative
    - Horizontal sync: 1.0 to 5.0 Vp-p, high impedance positive/negative
  - VD
    - Vertical sync: 1.0 to 5.0 Vp-p, high impedance positive/negative
- Digital RGB: DFP 20 pin (TMDS)
- USB HUB: Up (B type: Female) x 1, Down (A type: Female) x 1
- MOUSE IN: Square 13 pin (Female)
- AUDIO IN: Stereo mini jack, 500 mV rms, impedance more than 47 kΩ

INPUT B
- Analog RGB: HD D-sub 15 pin (Female)
  - R: 0.7 Vp-p ±2 dB positive, 75 Ω
  - G: 0.7 Vp-p ±2 dB positive, 75 Ω
  - G with Sync: 1.0 Vp-p ±2 dB sync negative, 75 Ω
  - B: 0.7 Vp-p ±2 dB positive, 75 Ω
  - SYNC/HD
    - Composite sync: 1.0 to 5.0 Vp-p, high impedance positive/negative
    - Horizontal sync: 1.0 to 5.0 Vp-p, high impedance positive/negative
  - VD
    - Vertical sync: 1.0 to 5.0 Vp-p, high impedance positive/negative
- MOUSE IN: Square 13 pin (Female)
- AUDIO IN: Stereo mini jack, 500 mV rms, impedance more than 47 kΩ

OUTPUT
- MONITOR OUT*5: HD D-sub 15 pin (Female) R/R-Y, G/Y, B/B-Y: Gain Unity, 75 Ω SYNC/HD, VD: 4.0 Vp-p (open), 1.0 Vp-p (75 Ω)
- AUDIO OUT: (Variable out) Stereo mini jack, Max. 1 V rms, when the input signal is 500 mV rms, impedance less than 5 kΩ
- REMOTE
  - RS-232C: D-sub 9 pin (Female)
- CONTROL S IN/ PLUG IN POWER: Stereo mini jack 5.0 Vp-p, plug in power, DC 5 V

Safety regulations: UL1950, CSA No.950, DHHS (Laser), FCC Class A, IC Class A, EN 60 950 (Nemko), CE, EN 60 825-1 (Laser), C-Tick, CCIB, VCCI class B, JEIDA (Laser)

Laser beam

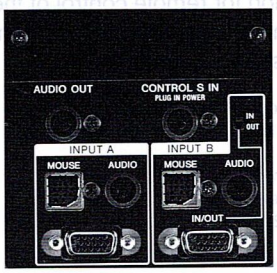
Laser type: Class II
Wavelength: 645 nm
Output: 1 mW

*1 ANSI lumens is a measuring method of the American National Standards Institute IT7.228.
*2 Compressed SXGA signal is reproduced while maintaining the 5:4 aspect ratio.
*3 The VPL-PX30 supports 480/60P, 575/50P, 1080/50I, 720/60P, and 720/50P DTV signals.
*4 Not available in some areas. For details, please consult your nearest Sony office.
*5 DIGITAL RGB signal is not ouput from the MONITOR OUT terminal.

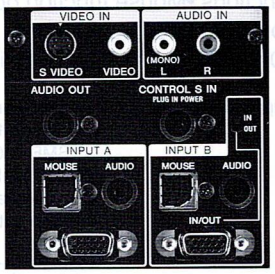
VPL-S900E/S900M (PAL/NTSC/SECAM/NTSC4.43/PAL-M)

LCD Data Projector

•SVGA resolution LCD (Liquid Crystal Display)-based portable presentation projector •Three TFT LCD panels for a total of 1,440,000 pixels (480,000 × 3 panels) •120 W UHP lamp incorporated •A remarkable high output of 1100 ANSI lumens*1 •Excellent uniformity and accurate colour reproduction assured with advanced technologies including bilinear interpolation •Handles VGA, SVGA, XGA*2, SXGA*2 with a horizontal frequency of 15 to 91 kHz, composite video, Y/C video and component video signals •Unique APA (Auto Pixel Alignment) function •Lightweight, compact magnesium diecast body •Seven language on-screen display •Grip-contoured remote commander RM-PJM600 with laser pointer and mouse control function •Desk top or ceiling mounted projection capabilities •Can be used with screens from 40 to 300 inches in size •Built-in three-speaker stereo



VPL-S900E



VPL-S900M

Supplied accessories:
Remote commander RM-PJM600
HD D-sub 15-pin to HD D-sub 15-pin cable SMF-401
Macintosh adaptor (1)
Mouse cables (2 m) SIC-S20/S21/S22
Audio visual cable (1.5 m)
Size AA battery (2)
Front cover
Lens cap
Strap for remote commander
Air filter
AC power cord
Operating manual
Quick reference sheet
Installation manual

Optional accessories:
Projector lamp (for replacement) LMP-600*3
Suspension support PSS-600
Carrying case VLC-600*3
Remote control receiver RM-PJ10
D-sub HD 15-pin to 5 BNC cable SMF-400
D-sub HD 15-pin to D-sub HD 15-pin cable SMF-401
D-sub HD 15-pin to Phono (3) cable SMF-402
Mouse cable SIC-S20/S21/S22
2 times zoom lens VPLL-ZM100
Fixed short focus lens VPLL-FM30
Fixed short focus lens VPLL-FM20
120-inch flat screen VPS-120FH*3
100-inch flat screen VPS-100FH*3
80-inch portable screen VPS-80C*3

Specifications

Optical

Projection system:	3 LCD panels, 1 lens projection system
LCD panel:	1.3-inch p-Si TFT LCD panel with Metal Mask, 1,440,000 pixels (480,000 pixels x 3)
Projection lens:	1.3 times zoom lens, F 2.0 to 2.4, f 54 to 70 mm
Lamp:	120 W UHP
Screen coverage:	40 to 300 inches (viewable area, measured diagonally)
Light output:	1100 ANSI lumens*1
Throwing distance:	
40-inch:	1570 to 2000 mm (61⅞ to 78¾ inches)
60-inch:	2400 to 3040 mm (94½ to 119¾ inches)
80-inch:	3240 to 4090 mm (127⅝ to 161⅛ inches)
100-inch:	4070 to 5130 mm (160⅜ to 202 inches)
120-inch:	4900 to 6180 mm (193 to 243⅜ inches)
200-inch:	8240 to 10360 mm (324½ to 408 inches)
300-inch:	12410 to 15580 mm (488¾ to 613½ inches)

General

Colour system:	PAL, NTSC, SECAM, NTSC4.43, PAL-M (automatically/manually selected)
Resolution:	Video: 600 TV lines, RGB: 800 × 600 pixels
Acceptable signals:	RGB (fH: 15 to 91 kHz, fV: 43 to 85 Hz), 15 kHz component 50/60 Hz system, composite video, Y/C video
Speaker:	Wide frequency range 3 speakers system (Woofer: 57 mm (2¼ inches) diameter, Max. 1 W, Tweeter: 28 mm (1⅛ inches) diameter, Max. 0.2 W × 2)
Power requirements:	AC 220 to 240 V, 50/60 Hz (CE listed for 220 to 240 V AC operation)
Power consumption:	Max. 220 W, standby 2 W
Heat dissipation:	750.7 BTU
Dimensions:	339 (W) × 136 (H) × 322 (D) mm (13⅜ × 5⅜ × 12¾ inches)
Mass:	Approx. 5.9 kg (13 lb)
Operating temperature:	0 to 40 °C (32 to 104 °F)
Operating humidity:	35 to 85%

Input/Output

VIDEO IN*4:	
Composite video:	Phono type × 1, 1.0 Vp-p ±2 dB sync negative, 75 Ω
S video:	Mini DIN 4-pin
Y:	1.0 Vp-p ±2 dB sync negative, 75 Ω
C:	0.3 Vp-p ±2 dB (PAL), 75 Ω or Burst 0.286 Vp-p ±2 dB (NTSC), 75 Ω
AUDIO IN:	Phono type × 2 (stereo), 500 mV rms, impedance more than 47 kΩ
INPUT A/B:	
Analogue RGB/Component:	HD D-sub 15-pin (Female)
R/R-Y:	0.7 Vp-p ±2 dB positive, 75 Ω
G:	0.7 Vp-p ±2 dB positive, 75 Ω
G with sync/Y:	1.0 Vp-p ±2 dB sync negative, 75 Ω
B/B-Y:	0.7 Vp-p ±2 dB positive, 75 Ω
SYNC:	HD D-sub 15-pin (Female)
C sync/HD:	
Composite sync:	1.0 to 5.0 Vp-p high impedance, sync positive/negative
Horizontal sync:	1.0 to 5.0 Vp-p high impedance, sync positive/negative
VD:	
Vertical sync:	1.0 to 5.0 Vp-p high impedance, sync positive/negative
MOUSE IN:	Square 13-pin (Female)
AUDIO IN:	Stereo mini jack, 500 mV rms, impedance more than 47 kΩ
INPUT B:	
Monitor out:	HD D-sub 15-pin (Female)
Video signal:	Gain unity
Sync signal:	4.0 Vp-p, high impedance/1.0 Vp-p, 75 Ω
AUDIO OUT (variable out)	Stereo mini jack, max. 1 V rms, when an output signal is 500 mV rms, impedance less than 5 kΩ

Laser beam

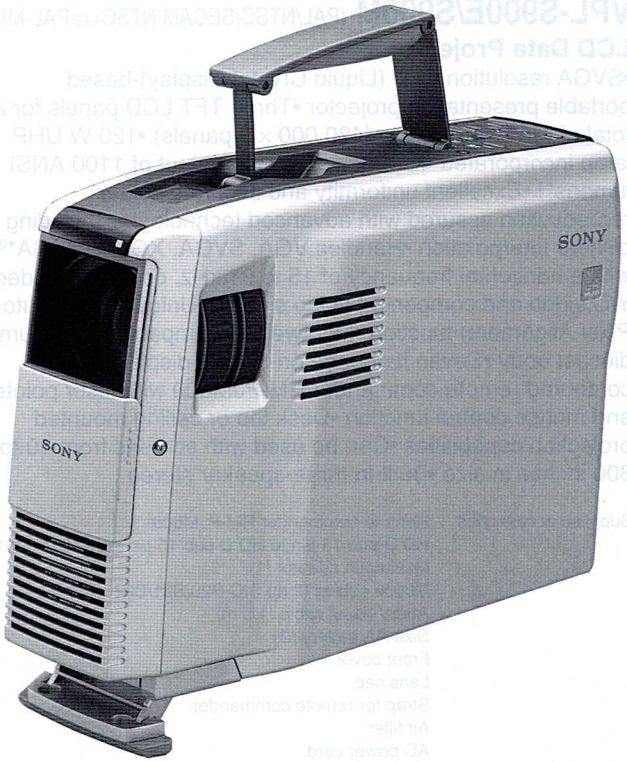
Laser type:	Class II
Wavelength:	645 nm
Output:	1 mW
Safety regulations:	EN 60 950, CE, C-Tick, EN 60 825-1 (Laser)

*1 ANSI lumens is a measuring method of the American National Standards Institute IT 7.228.
*2 Compressed XGA and SXGA signals are reproduced.
*3 Not available in some areas. For details, please consult your nearest Sony office.
*4 The VPL-S900E requires the installation of the IFB-X600E for video image reproduction.

VPL-PX1 (PAL/NTSC/SECAM/NTSC4.43/PAL-M)

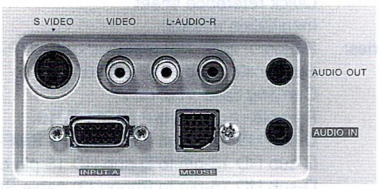
LCD Data Projector

•XGA resolution LCD (Liquid Crystal Display)-based data projector •Three 0.9-inch LCD panels for a total of 2,359,296 pixels (786,432 pixels × 3 panels) •120 W UHP lamp •High light output of 1000 ANSI lumens*1 •Excellent uniformity and accurate colour reproduction assured with advanced technologies •Built-in zoom lens •Accepts VGA, SVGA, XGA and SXGA*2 with a horizontal frequency of 15, 24 to 91 kHz •Lightweight at approx. 4.0 kg •On-screen menus with a choice of seven languages for adjustment/operation •Supplied remote commander RM-PJM600 controls all the projector functions •Mouse function operation for remote control of the connected computer source •Can be used with screens from 40 to 200 inches in size •Built-in stereo speakers



Supplied accessories:
- Remote commander RM-PJM600
- HD D-sub 15-pin to HD D-sub 15-pin cable (2 m) SMF-410
- Mouse cable (2 m) SIC-S22
- Audio-visual cable (1.5 m)
- AA size battery (2)
- Air filter
- Operating manual
- Quick reference sheet

Optional accessories:
- Projector lamp (for replacement) LMP-P120
- Carrying case VLC-SC50*3
- Interface selector IFU-SC50
- HD D-sub 15-pin to 5 BNC cable SMF-400
- HD D-sub 15-pin to HD D-sub 15-pin cable SMF-401
- HD D-sub 15-pin to RCA PIN x 3 cable SMF-402
- Mouse cable SIC-S20/S21/S22
- Macintosh® adaptor ADP-20
- Signal adaptor ADP-10
- 80-inch portable screen VPS-80C*3
- 50-inch portable screen VPS-50C*3



Specifications

Optical

Projection system:	3 LCD panels, 1 lens projection system
LCD panel:	0.9-inch p-Si TFT LCD panel with Micro Lens Array, 2,359,296 pixels (786,432 pixels × 3)
Projection lens:	1.3 times zoom lens, F 1.7 to 2.0, f 37.3 to 48.5 mm
Lamp:	120 W plus UHP
Screen coverage:	40 to 200 inches (viewable area, measured diagonally)
Light output:	1000 ANSI lumens*1
Throwing distance:	
40-inch:	1590 to 2040 mm (63 to 80 inches)
60-inch:	2440 to 3100 mm (96 to 122 inches)
80-inch:	3280 to 4160 mm (129 to 164 inches)
100-inch:	4120 to 5220 mm (162 to 206 inches)
120-inch:	4970 to 6280 mm (196 to 247 inches)
150-inch:	6230 to 7870 mm (245 to 310 inches)
200-inch:	8340 to 10520 mm (328 to 414 inches)

General

Colour system:	PAL, NTSC, SECAM, NTSC4.43, PAL-M (automatically/manually selected)
Resolution:	750 TV lines (video), 1024 × 768 pixels (RGB)
Acceptable signals:	RGB (fH: 15, 24 to 91 kHz, fV: 50 to 85 Hz), 15 kHz component 50/60 Hz system, composite video, Y/C video
Speaker:	Max. 1 W × 2 (stereo)
Power requirements:	AC 100 to 240 V, 50/60 Hz
Power consumption:	Max. 190 W, standby 2 W
Heat dissipation:	648.4 BTU
Dimensions:	108 (W) × 223 (H) × 337 (D) mm (4⅜ × 8⅞ × 13⅜ inches)
Mass:	Approx. 4 kg (8 lb 13 oz)
Operating temperature:	0 to 40 °C (32 to 104 °F)
Operating humidity:	35 to 85%

Input/Output

VIDEO IN:	
Composite:	Phono type, 1.0 Vp-p ±2 dB, sync negative, 75 Ω
Y/C IN:	Mini DIN 4-pin
Y:	1.0 Vp-p ±2 dB, sync negative, 75 Ω
C:	Burst 0.3 Vp-p ±2 dB (PAL), 75 Ω or 0.286 Vp-p ±2 dB (NTSC), 75 Ω
INPUT A:	
Analogue RGB/Component:	HD D-sub 15-pin (Female)
R/R-Y:	0.7 Vp-p ±2 dB, positive, 75 Ω
G:	0.7 Vp-p ±2 dB, positive, 75 Ω
G with Sync/Y:	1.0 Vp-p ±2 dB, sync negative, 75 Ω
B/B-Y:	0.7 Vp-p ±2 dB, positive, 75 Ω
SYNC/HD:	
Composite sync:	1.0 to 5.0 Vp-p, high impedance positive/negative
Horizontal sync:	1.0 to 5.0 Vp-p, high impedance positive/negative
VD:	
Vertical sync:	1.0 to 5.0 Vp-p, high impedance positive/negative
MOUSE IN:	Square13-pin (Female)
AUDIO IN:	Stereo mini jack, 500 mV rms, impedance more than 47 kΩ
AUDIO OUT (variable out):	Stereo mini jack, max. 1 V rms, when the input signal is 500 mV rms, impedance less than 5 kΩ

Laser beam

Laser type:	Class II
Wavelength:	645 nm
Output:	1 mW

Safety regulations

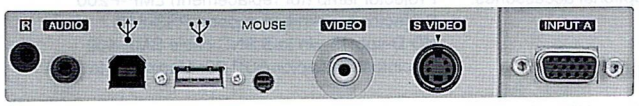
UL 1950, cUL 950 (CSA No.950), DHHS (Laser), FCC Class A, IC Class A, EN 60 950 (TÜV), CE, C-Tick, EN 60 825-1 (Laser)

*1 ANSI lumens is a measuring method of the American National Standards Institute IT7.228.
*2 Compressed SXGA signal is reproduced while preserving the detail of the image.
*3 Not available in some areas. For details, please consult your nearest Sony office.

VPL-CS1 (PAL/NTSC/SECAM/NTSC4.43/PAL-M)

LCD Data Projector

•LCD (Liquid Crystal Display)-based projector •Three 0.7-inch SVGA LCD Panels for a total of 1,440,000 pixels (480,000 pixels x 3 panels) •120 W UHP lamp •Light output of 600 ANSI lumens*1 •Excellent uniformity and accurate colour reproduction assured with advanced technologies •Built-in 1.3 times zoom lens •Accepts VGA, SVGA, XGA and SXGA with a horizontal frequency of 15, 24 to 91 kHz •Extremely compact and lightweight at 2.9 kg •On-screen menus with a choice of seven languages for adjustment/operation •Supplied remote commander RM-PJM1 controls all the projector functions •Mouse function operation for remote control of the connected computer source •Can be used with screens from 40 to 150 inches in size •Built-in stereo speakers



Supplied accessories:	Remote commander RM-PJM1 HD D-sub 15-pin to HD D-sub 15-pin cable (2 m) SMF-410 PS/2 mouse cable (2 m) USB cable A type to B type USB application software PROJECTOR STATION Carrying bag AAA size battery (2) Air filter Operating manual Quick reference sheet
Optional accessories:	Projector lamp (for replacement) LMP-C120 Monitor cable SMF-400/410 Signal cable SMF-402 Macintosh® adaptor ADP-20: Macintosh to VGA 50-inch portable screen VPS-50C*2

Specifications

Optical

Projection system:	3 LCD panels, 1 lens projection system
LCD panel:	0.7-inch p-Si TFT LCD panel, 1,440,000 pixels (480,000 pixels x 3)
Lamp:	120 W UHP
Screen coverage:	40 to 150 inches (viewable area, measured diagonally)
Light output:	600 ANSI lumens*1
Throwing distance	
40-inch:	1580 to 2010 mm (62¼ to 78$^{25}/_{32}$ inches)
60-inch:	2390 to 3060 mm (94⅛ to 120½ inches)
80-inch:	3210 to 4100 mm (126 ½ to 161½ inches)
100-inch:	4030 to 5150 mm (158$^{11}/_{16}$ to 202⅞ inches)
120-inch:	4850 to 6200 mm (191 to 244⅛ inches)
150-inch:	6080 to 7780 mm (239½ to 306⅜ inches)

Signals

Colour system:	PAL, NTSC, SECAM, NTSC4.43, PAL-M, PAL-N (automatically/manually selected)
Resolution:	600 TV lines (video), 800 × 600 pixels (RGB)
Acceptable signals:	RGB (fH: 15 to 91 kHz, fV: 43 to 85 Hz), 15 kHz component 50/60 Hz system, composite video, Y/C video

General

Speaker:	Max. 0.5 W x 2 (stereo)
Power requirements:	AC 100 to 240 V, 50/60 Hz
Power consumption:	Max. 190 W, standby 4.2 W
Operating temperature:	0 to 35 °C (32 to 95 °F)
Operating humidity:	35 to 85%
Dimensions:	277 (W) × 70 (H) × 214 (D) mm (11 × 2⅞ × 8½ inches)
Mass:	Approx. 2.9 kg (6 lb 6 oz)
Heat dissipation:	648.4 BTU

Inputs/Outputs

VIDEO IN:	
Composite:	Phono type, 1.0 Vp-p ±2 dB, sync negative, 75 Ω
Y/C IN:	Mini DIN 4-pin
Y:	1.0 Vp-p ±2 dB, sync negative, 75 Ω
C:	0.3 Vp-p ±2 dB (PAL), 75 Ω or Burst 0.286 Vp-p ±2 dB (NTSC), 75 Ω
INPUT A:	
Analogue RGB/ Component:	HD D-sub 15-pin (Female)
R/R-Y:	0.7 Vp-p ±2 dB, positive, 75 Ω
G:	0.7 Vp-p ±2 dB, positive, 75 Ω
G with Sync/Y:	1.0 Vp-p ±2 dB, sync negative, 75 Ω
B/B-Y:	0.7 Vp-p ±2 dB, positive, 75 Ω
SYNC/HD:	
Composite sync:	1.0 to 5.0 Vp-p, high impedance positive/negative
Horizontal sync:	1.0 to 5.0 Vp-p, high impedance positive/negative
VD:	
Vertical sync:	1.0 to 5.0 Vp-p, high impedance positive/negative
MOUSE IN:	6-pin (Female)
USB HUB:	UP (B type female), Down (A type Female)
AUDIO IN:	Stereo mini jack, 500 mV rms, impedance more than 47 kΩ

Safety regulations

UL1950, CSA No.950, FCC Class A, IC Class A, EN 60 950 (Nemko), CE, C-Tick, CCIB, VCCI Class B

*1 ANSI lumens is a measuring method of the American National Standards Institute IT7.228.
*2 Not available in some areas. For details, please consult your nearest Sony office.

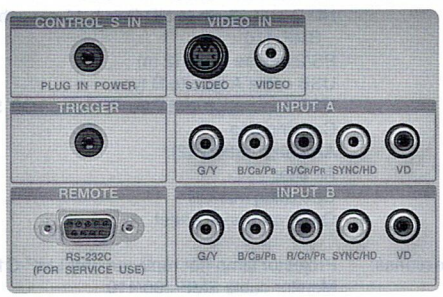
VPL-VW10HT (PAL/NTSC/SECAM/NTSC4.43/PAL-M/PAL-N)

LCD Video Projector

•LCD (Liquid Crystal Display)-based projector designed for a home theatre •Three wide-XGA (1366 x 768 pixels) LCD panels •200 W UHP lamp •Light output of 1000 ANSI lumens*1 (In the "normal" mode, 16:9 aspect) •Superb picture quality with Digital Reality Creation - Multi Function, 3D gamma correction and 3D*2/3-line YC separation/DNR circuit •Cinema black mode •Video memory •Through mode for one to one mapping •Low fan noise •White cabinet •Short throwing distance •RGB input acceptable •Remote control unit RM-PJVW10 supplied

Supplied accessories:
- Remote control unit RM-PJVW10
- AA size battery (2)
- Air filter
- Operating manual

Optional accessories:
- Projector lamp (for replacement) LMP-P200
- Projector suspension support PSS-610
- HD D-sub 15-pin to 5 BNC cable SMF-400
- Macintosh® adaptor ADP-20: Macintosh to VGA



Specifications

Optical

Projection system:	3 LCD panels, 1 lens projection system	
LCD panel:	1.35-inch p-Si TFT LCD panel, 3,147,264 pixels (1,049,088 pixels x 3)	
Projection lens:	1.2 times zoom lens, F 2.2 to 2.5, f 44.6 to 53.6 mm	
Lamp:	200 W UHP	
Screen coverage:	40 to 300 inches (16:9, viewable area, measured diagonally)	
Light output:	1000 ANSI lumens*1 (16:9), 750 ANSI lumens (4:3)	
Throwing distance:		
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40-inch:	1260 to 1470 mm	(49⅝ to 57 inches)
60-inch:	1930 to 2240 mm	(76 to 88¼ inches)
80-inch:	2600 to 3010 mm	(102⅜ to 118 5/32 inches)
100-inch:	3270 to 3780 mm	(128⅞ to 148⅞ inches)
120-inch:	3930 to 4550 mm	(154¾ to 179¼ inches)
150-inch:	4940 to 5710 mm	(194⅝ to 224⅞ inches)
180-inch:	5940 to 6860 mm	(234 to 270⅛ inches)
200-inch:	6610 to 7630 mm	(260⅜ to 300½ inches)
250-inch:	8270 to 9560 mm	(325¾ to 376½ inches)
300-inch:	9940 to 11480 mm	(391½ to 452⅛ inches)
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40-inch:	1560 to 1820 mm	(61½ to 71¾ inches)
60-inch:	2380 to 2760 mm	(93¾ to 108¾ inches)
80-inch:	3200 to 3700 mm	(126 to 145¾ inches)
100-inch:	4020 to 4650 mm	(158 5/16 to 183⅛ inches)
120-inch:	4830 to 5590 mm	(190¼ to 220⅛ inches)
150-inch:	6060 to 7000 mm	(238⅝ to 275⅝ inches)
180-inch:	7290 to 8420 mm	(287⅛ to 331⅝ inches)
200-inch:	8100 to 9360 mm	(319 to 368⅝ inches)
250-inch:	10150 to 11720 mm	(399¾ to 461½ inches)
300-inch:	12190 to 14070 mm	(480 to 554⅛ inches)

Signals

Colour system:	PAL, NTSC, SECAM, NTSC4.43, PAL-M, PAL-N (automatically/manually selected)
Resolution:	750 TV lines (video), 1100 TV lines (HD), 1366 x 768 pixels (RGB)
Acceptable signals:	DTV (480i, 480p, 720p, 1080i), progressive component, 15 kHz component 50/60 Hz system, composite video, Y/C video, RGB (fH: 15 to 91 kHz, fV: 50 to 85 Hz)

General

Power requirements:	AC 100 to 240 V, 50/60 Hz
Power consumption:	Max. 300 W, standby 6 W
Heat dissipation:	1023.7 BTU
Dimensions:	395 (W) × 168 (H) × 427 (D) mm (15⅝ × 6⅝ × 16⅞ inches)
Mass:	Approx. 8 kg (17 lb 10 oz)
Operating temperature:	0 to 40 °C (32 to 104 °F)
Operating humidity:	35 to 85%

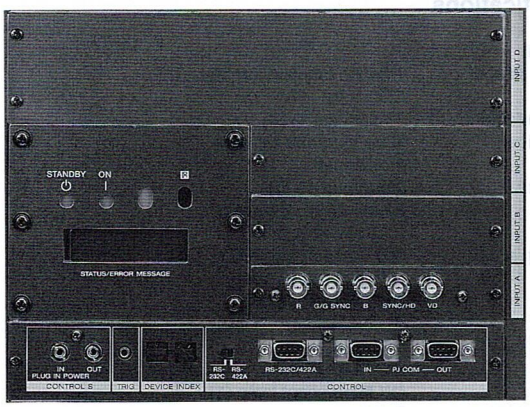
Inputs/Outputs

VIDEO IN:	
Composite:	Phono type, 1.0 Vp-p ±2 dB sync negative, 75 Ω
Y/C IN:	Mini DIN 4-pin
Y:	1.0 Vp-p ±2 dB sync negative, 75 Ω
C:	0.3 Vp-p ±2 dB (PAL), 75 Ω or Burst 0.286 Vp-p ±2 dB (NTSC), 75 Ω
INPUT A/B:	
Component/Progressive:	Phono type
Component/YPBPR/ Analogue RGB:	
G:	0.7 Vp-p ±2 dB positive, 75 Ω
G with sync /Y:	1.0 Vp-p ±2 dB sync negative, 75 Ω
B/CB/PB:	0.7 Vp-p ±2 dB positive, 75 Ω
R/CR/PR:	0.7 Vp-p ±2 dB positive, 75 Ω
SYNC/HD:	
Composite sync:	1.0 to 5.0 Vp-p, high impedance positive/negative
Horizontal sync:	1.0 to 5.0 Vp-p, high impedance positive/negative
VD:	
Vertical sync:	1.0 to 5.0 Vp-p, high impedance positive/negative
CONTROL S IN/ PLUG IN POWER:	Stereo mini jack 5.0 Vp-p Plug in power DC 5 V
TRIGGER:	Mini jack
Power on:	DC 12 V, output impedance: 4.7 kΩ
Power off:	0 V
REMOTE (RS-232 C):	D-sub 9-pin (Female)
Safety regulations	UL, cUL (CSA), FCC Class B, IC Class B, EN 60 950 (Nemko), CE, C-Tick, VCCI class B, JEIDA

*1 ANSI lumens is a measuring method of the American National Standards Institute IT 7.228.
*2 This function is only applicable to NTSC signals.

VPD-LE100 (PAL/NTSC/ SECAM/NTSC4.43/PAL-M)

•Multiscan projector with DLP™ (Digital Light Processing™) technology •Outstanding brightness of 10000 ANSI lumens*1 •Three SXGA DMD™ (Digital Micromirror Device™) panels for a total of 3,932,160 pixels (1,310,720 x 3 panels) •Multi-scan capability with a built-in scan converter: horizontal 15 to 100 kHz, vertical 40 to 120 Hz •HDTV/DTV compatibility •Sony Digital Reality Creation as standard while 2-3 pull down FILM mode selected (Applicable for 525/60 system only) •Power zoom and power focus •Excellent uniformity •Horizontal and vertical power lens shift function •Superb colour reproduction with a Xenon lamp •A wide range of optional lenses covering various installation demands •Optional IFB boards available including 4:2:2 SDI and HD SDI board •Can be used with screens from 70 to 700 inches in size



Supplied accessories:	Remote commander RM-PJ1001 Remote commander cable (15 m) AA size battery (3) AC power cord PJ COM termination Lens ring Operating manual Installation manual
Optional accessories:	1.3 times zoom lens VPDL-Z1014 1.2 times zoom lens VPDL-Z1019 1.6 times zoom lens VPDL-Z1023 1.8 times zoom lens VPDL-Z1037 Projector lamp (for replacement) LMP-L2000 Signal adaptor HD D-sub 15-pin to D-sub 9-pin (for SIC Cable) ADP-10 Signal adaptor Macintosh® to VGA adaptor ADP-20 D-sub HD 15-pin to 5 BNC cable SMF-400 D-sub HD 15-pin to D-sub HD 15-pin SMF-401 Interface board IFB-12A/20/21/30/1000/50/LE100 Signal interface cable SIC-20A/20B/20C/21/22 Signal interface switcher PC-3000 9 pin remote cable RCC-5G/10G/30G (for RS-422A) Remote commander RM-PJ3000S Remote control receiver RM-PJ10 100-inch flat screen VPS-100FH*2 120-inch flat screen VPS-120FH*2

Specifications

Optical

Projection system:	3 SXGA DMD panels, 3 panel prism colour integration system
DMD panel:	3,932,160 pixels (1,310,720 × 3 panels)
Lamp:	Xenon lamp
Light output:	10000 ANSI lumens*1
Screen coverage:	70 to 700 inches

General

Colour system:	PAL/NTSC/SECAM/NTSC4.43/PAL-M automatically selected (with optional IFB board; either IFB-12A/1000 incorporated)
Resolution:	600 TV lines (video) 1280 x 1024 pixels (RGB)
Scanning frequency:	Horizontal: 15 kHz to 100 kHz Vertical: 40 Hz to 120 Hz Display area: >6.4 usec
Power requirements:	AC 220 to 240 V, 50/60 Hz
Power consumption:	Approx. 2.8 kW, Standby: approx. 40 W
Heat dissipation:	9556 BTU
Operating temperature:	10 to 35 °C (50 to 104 °F)
Operating humidity:	35 to 85% (No condensation)
Storage temperature:	-20 to 60 °C (-4 to 140 °F)
Storage humidity:	10 to 90%
Dimensions:	750 (W) × 340 (H) × 1000 (D) mm (29⅝ × 13½ × 39⅜ inches)
Mass:	Approx. 95 kg (209 lb)

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Inputs/Outputs

Input A:	
Analogue RGB/ Component:	BNC x 5
R/R-Y:	0.7 Vp-p ±2 dB positive, 75 Ω
G:	0.7 Vp-p ±2 dB positive, 75 Ω
Y/G with sync:	1.0 Vp-p V ±2 dB sync negative, 75 Ω
B/B-Y:	0.7 Vp-p ±2 dB positive, 75 Ω
SYNC/HD	
Composite sync:	0.6 to 8.0 Vp-p, high impedance, sync positive/negative
Horizontal sync:	0.6 to 8.0 Vp-p, high impedance, sync positive/negative
Vertical sync:	0.6 to 8.0 Vp-p high impedance, sync positive/negative
STV/HDVS (Y/PB/PR):	BNC
Y:	1.0 Vp-p ±2 dB positive, 75 Ω Tri-level sync: ±0.3 Vp-p, Bi-level sync: 0.3 Vp-p
PB/PR:	±0.35 Vp-p ±2 dB positive, 75 Ω
DTV/HDVS (GBR):	BNC
G with sync:	1.0 Vp-p ±2 dB, 75 Ω Tri-level sync: ±0.3 Vp-p, Bi-level sync: 0.3 Vp-p
B/R:	0.7 Vp-p ±2 dB positive, 75 Ω
Input B/C:	Open for optional IFB board
Input D:	Open for optional IFB-LE100
CONTROL S IN/	Stereo mini-jack 5.0 Vp-p,
PLUG IN POWER:	Plug in power DC 5 V, max. output 60 mA
CONTROL S OUT:	Stereo mini jack 5.0 Vp-p
REMOTE I/F	
RS-232C/422A:	D-sub 9-pin (female) selectable
TRIG:	Mini-jack Power On: 12 V Power Off: 0 V Output impedance: 4.7 kΩ

Safety regulations: UL1950, cUL950, FCC Class A, IC Class A, VCCI Class A, JEIDA, EN60 950 (TÜV), CE, C-tick

*1 ANSI lumens is a measuring method of the American National Standard Institute IT7.228.
*2 Not available in some areas. For details, please consult your nearest Sony office.

DISPLAY PRODUCTS

VID-P50

Video Presentation Stand

•Clear image reproduction with a high horizontal resolution of over 450 TV lines •12 times powered zoom capability •Fully automatic functions (auto focus, auto iris, auto white balance) for easy operation •Lighting unit as standard •Flip up and tilt camera head up to 90 degrees to capture images within the room •One-touch detachable close-up lens •Video output and S-video (Y/C) output connector •Document area is (300 × 300) enabling the use of A4 or letter size •Lightweight, easy-to-carry design

Supplied accessories: AC cable
Operation manual

Specifications

General

Pick up device:	1/3-inch Interline transfer CCD × 1
Picture element:	752 (H) × 582 (V)
Resolution:	More than 450 TV lines (horizontal)
S/N ratio:	More than 48 dB
Lens:	F1.8, f=5.4 to 64.8 mm (×12 power zoom)
Shooting area:	300 × 225 mm (WIDE) (11 7/8 × 10 1/8 inches) 25 × 19 mm (TELE) (1 × 3/4 inches)
Focus:	Full Auto
Iris:	Full Auto
Lighting:	4W fluorescent lamp (1)
White balance:	Full Auto
Outputs:	Video (Phono connector (1)) 1.0 Vp-p sync negative S-video (4 pin mini DIN (1)) Y: 1.0 Vp-p, 75 Ω, sync negative C: 0.3 Vp-p, 75 Ω (PAL) 0.286 Vp-p, 75 Ω (NTSC)
Dimensions:	335 (W) × 525 (H) × 355(D) mm (13 1/4 × 20 3/4 × 14 inches) <when folded> 335 (W) × 70 (H) × 550 (D) mm (13 1/4 × 2 7/8× 21 3/4 inches)
Mass:	4.1 kg (9 lb 1 oz)
Power requirement:	AC 230 V, 50 Hz, 10 W

VID-P110

Video Presentation Stand

•Three-dimensional objects just as well as flat objects such as charts, drawings, books etc. can be displayed on TV monitors and projectors •1/3-inch CCD camera provides a high horizontal resolution of over 450 TV lines •Auto focus, auto iris control and auto white balance •Two pattern memories •One-touch, swing out, close-up lens •12 times powered zoom capability •Flip up, pan and tilt camera head •Dual arm lights, each with two 9 W florescent lamps •Built-in back light function •Input selector •S-video input / output connections (Y/C separate/mix circuit) •Black and white mode •RS-232C interface for control from a PC •Lightweight, compact and easy-to-carry design

Supplied accessories: AC power code (1)
Operation manual (1)
Interface manual (1)

Specifications

Pick-up device:	1/3 inch interline transfer, CCD
Picture element:	752 (H) × 582 (V)
Resolution:	More than 450 TV lines
Shooting Area:	325 × 240 mm (max.) (12 7/8 × 9 1/2 inches) 29 × 22 mm (min.) (1 3/16 × 7/8 inches)
Lens:	F=1.8 to 2.7, f=5.4 to 64.8 mm
Output selector:	Camera/Video 1/Video 2
Arm light:	9 W twin-fluorescent lamp (2)
Built-in backlight:	2.5 W cold cathode ray lamp (2)
Input connectors:	
Video in:	Phono (2) 1.0 Vp-p, 75 Ω, sync negative
S video in:	4-pin mini DIN (2) Y: 1.0 Vp-p, 75 Ω, sync negative C: 0.3 Vp-p, 75 Ω
Audio in:	Phono (2) pair, stereo Input impedance: 47 kΩ Level: -10 dBu, unbalanced
Mic in:	Standard jack (1) Input impedance: 3.3 kΩ Level: -60 dBu, unbalanced
Output connectors:	
Video out:	Phono (1), BNC (1) 1.0 Vp-p, 75 Ω, sync negative
S video out:	4-pin mini DIN (1) Y: 1.0 Vp-p, 75 Ω, sync negative C: 0.3 Vp-p, 75 Ω
Audio out:	Phono (1) pair, stereo Output impedance: less than 600 Ω Level: -10 dBu, unbalanced
RS-232C connector:	D-sub 9-pin, male Baud rate: 9600 bps
Power requirements:	230 V AC, 50/60 Hz
Power consumption:	30 W
Mass:	8.0 kg (17 lb 10 oz)
Dimensions:	446 (W) × 583 (H) × 622 (D) mm (17 5/8 × 23 × 24 1/2 inches) 446 (W) × 166 (H) × 634 (D) mm (when folded) (17 5/8 × 6 5/8 × 25 inches)

VID-P150

Video Presentation Stand

•Three-dimensional objects just as well as flat objects such as charts, drawings, books etc. can be displayed on TV monitors and projectors •1/3-inch CCD camera provides a high horizontal resolution of over 450 TV lines •Auto focus, auto iris control and auto white balance •Four pattern memories •One-touch, swing out, close-up lens •12 times powered zoom capability •Flip up, pan and tilt camera head •Motorized (remotely controlled) pan and tilt camera head •Home position for quick return to standard camera position •Dual arm lights, each with two 9 W fluorescent lamps •Built-in back light function •Input selector •S-video input/output connections (Y/C separate/mix circuit) •Black and white mode •Wireless remote commander supplied as standard •RS-232C interface for control from a PC •Lightweight, compact and easy-to-carry design

Supplied accessories:
Wireless remote commander (1)
AC power code (1)
Operation manual (1)
Interface manual (1)
Dry battery (2) (for remote commander)

Specifications

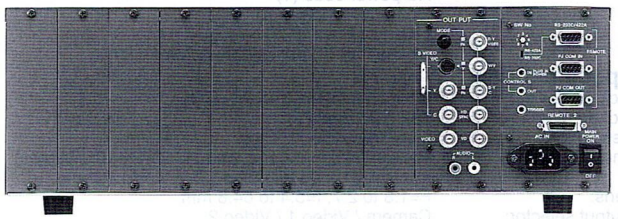
Pick-up device:	1/3 inch interline transfer, CCD
Picture element:	752 (H) × 582 (V)
Resolution:	More than 450 TV lines
Shooting area:	Approx. 325 × 260 mm (max.) (12⅞ × 10¼ inches) Approx. 31 × 23 mm (min.) (1¼ × 29/32 inches)
Lens:	F=1.8 to 2.7, f=5.4 to 64.8 mm
Output selector:	Camera / Video 1 / Video 2
Arm light:	9 W twin-fluorescent lamp (2)
Built-in backlight:	2.5 W cold cathode ray lamp (2)
Input connectors:	
Video in:	Phono (2) 1.0 Vp-p, 75 Ω, sync negative
S video in:	4-pin mini DIN (2) Y: 1.0 Vp-p, 75 Ω, sync negative C: 0.3 Vp-p, 75 Ω
Audio in:	Phono (2) pair, stereo Input impedance: 47 kΩ Level: -10 dBu, unbalanced
Mic in:	Standard jack (1) Input impedance: 3.3 kΩ Level: -60 dBu, unbalanced
Output connectors:	
Video out:	Phono (1), BNC (1) 1.0 Vp-p, 75 Ω, sync negative

S video out:	4-pin mini DIN (1) Y: 1.0 Vp-p, 75 Ω, sync negative C: 0.3 Vp-p, 75 Ω
Audio out:	Phono (1) pair, stereo Output impedance: less than 600 Ω Level: -10 dBu, unbalanced
Camera monitor out:	Phono jack (1) 1.0 Vp-p, 75 Ω, sync negative
Wireless remote commander:	Supplied as standard Service Area 60°, 5 m
RS-232C connector:	D-sub 9-pin, male Baud rate: 9600 bps
Power requirements:	230 V AC, 50/60 Hz
Power consumption:	230 V, 0.3 A
Mass:	8.8 kg (19 lb 6 oz)
Dimensions:	446 (W) × 625 (H) × 622 (D) mm (17⅝ × 24⅝ × 24½ inches) 446 (W) × 190 (H) × 711 (D) mm (when folded) (17⅝ × 7½ × 28 inches)

PC-3000

Signal Interface Switcher for VPH-G90E/G90M, VPL-FE100E/FE100M/FX200E/FX200M and VPD-LE100

•Provides eight slots for optional interface boards and one fixed output with 150 MHz cable compensation •Up to eight PC-3000 units can be connected, enabling up to 57 different signals to be connected in a system •RGB bandwidth of 300 MHz •Equipped with an RS-232C/RS422A communication port •Equipped with a PJ COM port, in accordance with RS-485 •Incorporates an LCD display in the front panel for easier setting and adjustments •Input selection of a connected projector, as well as the input selection of the PC-3000 itself, can be controlled via the front panel •Last channel memory •Can be easily controlled with optional remote commander RM-PJ3000S •Trig terminal to provide control of an integrated projection room •19-inch EIA standard rack mountable with supplied rack mount kit



Supplied accessories:	AC cable Rack mount kit for 19-inch EIA standard rack Operating instructions Terminator
Optional accessories:	Remote commander RM-PJ3000S 9-pin remote control cable RCC-5G/10G/30G (for PJ COM and RS-422A)

Specifications

General

RGB bandwidth:	300 MHz -3 dB
Power requirements:	100 to 240 V, 50/60 Hz
Power consumption:	80 W
Dimensions:	424 (W) × 133 (H) × 420 (D) mm (16 11/16 × 5 1/4 × 16 17/32 inches)
Mass:	9.3 kg (20 lb 7 oz)

Outputs

	BNC connector (8), DIN 4-pin (1)
Video signal:	Gain unity, impedance 75 Ω
Sync signal:	5 Vp-p (Impedance high) 1 Vp-p (Impedance 75 Ω)
Audio:	Gain unity, impedance 1 kΩ
CONTROL S IN/	Stereo mini jack, 5 Vp-p
PLUG IN POWER:	DC 5 V, max. output 60 mA
CONTROL S OUT:	Stereo mini jack, 5 Vp-p
TRIG:	Mini jack Power ON: DC 12 V, output impedance 4.7 kΩ Power OFF: 0 V
Remote	
RS-232C/422A:	D-sub 9-pin (Female)
PJ COM IN/OUT:	D-sub 9-pin (Female)
Remote 2:	Half pitch 26-pin

*With optional IFB-40, the PC-3000 is also compatible with other current projectors.

IFU-1271M*1

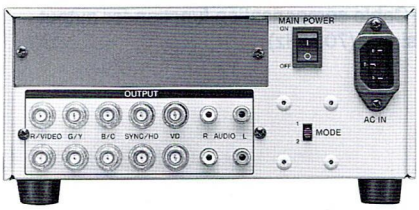
Interface Unit for VPH-G90E/G90M/ G70QM/G70QMG/G70VRM/D50QM/ D50HTM

- One in/two out signal distributor with 100MHz bandwidth*2
- Converts digital signal level to analogue signal level for output
- Sync output mode selection

Inputs: (Open for an optional IFB Series input module)
Output: BNC ×5 (2)
Phono (2)
(stereo or monaural selectable)
Bandwidth: 120 MHz (-3 dB)

Power requirements:
AC 220 to 240 V, 50/60 Hz
Dimensions: 180 (W) × 105 (H) × 185 (D) mm (7⅛ × 4¼ × 7⅜ inches)
Mass: 3 kg (6 lb 9.8 oz)
Supplied accessories:
AC power cord
Operation manual

*1 Not available in some areas.
*2 The output signal from IFB-1000 is the same as the input. The output signal from IFB-1200 can be changed according to the selection switch on the board (component/RGB).



IFU-SC50

Interface Unit for the VPL-PX1/ S900E/S900M

- Two input, one output signal selector - allows two computers to be simultaneously connected to one projector
- Built-in mouse receiver for wireless mouse control

Inputs/Outputs:
INPUT 1/2:
HD D-sub 15-pin (female)
OUTPUT: HD D-sub 15-pin (male)
Mouse IN: Square 13-pin (female)
Audio IN/OUT:
Stereo mini jack

Frequency response:
Up to fH: 80 kHz
(SXGA 1280 × 1024, fV: 75 Hz)
Cable length: 0.5 m (19¾ inches)
Dimensions: 108 (W) × 48.5 (H) × 108 (D) mm (4⅜ × 1 15/16 × 4⅜ inches)
Mass: Approx. 370 g (13 oz)

IFB-12A

Interface Board for VPH-G90E/G90M/ G70QM/G70QMG/D50QM, VPL-FE100E/FE100M/FX200E/ FX200M, VPD-LE100, PC-3000 and IFU-1271M

- Accepts analogue RGB, component (Y/R-Y/B-Y), HDTV (Y/PB/PR, GBR), composite video and Y/C video signals
- RGB bandwidth of 300 MHz -3 dB
- Cable compensation function for output signals (150 MHz)

Inputs/Outputs:
Video: BNC (5)
Audio: Phono (2)
(stereo or monaural selectable)
Dimensions: 129 (W) × 35 (H) × 138 (D) mm (5⅛ × 1 7/16 × 5½ inches)
Mass: Approx. 200 g (7 oz)

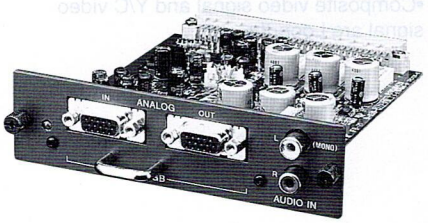
*For input only. Acceptable signals vary according to the connected projector.

IFB-21

Interface Board for VPH-G90E/G90M/ G70QM/G70QMG/G70VRM/D50QM, VPL-FE100E/FE100M/FX200E/ FX200M, VPD-LE100 and IFU-1271M

- RGB bandwidth of 150 MHz

Inputs:
RGB: Analogue, HD D-sub 15-pin
AUDIO: Phono
(stereo or monaural selectable)
Dimensions: 129 (W) × 35 (H) × 138 (D) mm (5⅛ × 1 7/16 × 5½ inches)
Mass: Approx. 200 g (7 oz)



DISPLAY PRODUCTS

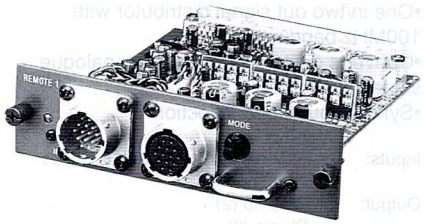
IFB-40

Interface Board for VPH-G90E/G90M/G70QM/G70QMG/D50QM and PC-3000

•14-pin multi-connector input/output board (for SIC-M/CCQ cable)
•Used to connect projector to signal interface switcher PC-3000
•RGB bandwidth of 70 MHz
•Cable compensation function for output signal (70 MHz)

Inputs/Outputs:
14-pin multi connectors
(Input: male, Output: female)
Power requirements:
DC 12 V
Power consumption:
Max. 2 W

Dimensions: 129 (W) × 35 (H) × 138 (D) mm
(5⅛ × 1⁷⁄₁₆ × 5½ inches)
Mass: Approx. 200 g (7 oz)



IFB-50

Interface Board for VPH-G90E/G90M/G70QM/G70QMG/D50QM, VPL-FE100E/FE100M/FX200E/FX200M, VPD-LE100, PC-3000 and IFU-1271M

•Component SDI
•Serial Digital Interface board for SMPTE-259 M-C/ITU-R BT656-3 4:2:2 video signals
•IFB-50 manages video signals only. Serial digital audio signals are not supported.

Inputs/Outputs:
In: BNC, Component SDI
Out: BNC, Active loop-through

Dimensions: 129 (W) × 35 (H) × 138 (D) mm
(5⅛ × 1⁷⁄₁₆ × 5½ inches)
Mass: Approx. 200 g (7 oz)

IFB-G90E

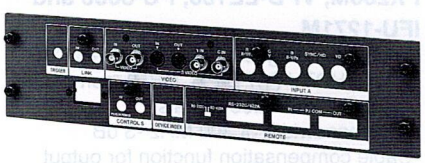
Interface Board for VPH-G90E

•Accepts composite video signal and S video signal input

Inputs/Outputs:
VIDEO:
Composite:
Loop-through BNC,
1.0 Vp-p ±2 dB sync negative,
75 Ω automatic termination
Y IN: BNC, 1.0 Vp-p ±2 dB sync negative, 75 Ω, terminated
C IN: BNC,
0.3 Vp-p ±2 dB (PAL), sync negative, 75 Ω terminated or Burst 0.286 Vp-p ±2 dB (NTSC), sync negative, 75 Ω terminated

Y/C IN: Loop-through Mini DIN 4-pin
Y: 1.0 Vp-p ±2 dB sync negative, 75 Ω, automatic termination
C: 0.3 Vp-p ±2 dB (PAL), 75 Ω automatic termination or Burst 0.286 Vp-p ±2 dB (NTSC), 75 Ω automatic termination

Dimensions: 370 (W) × 90 (H) × 50 (D) mm
(14⅝ × 3⅝ × 2 inches)
Mass: 260 g (9 oz)



IFB-G70QMG

Interface Board for VPH-G70QMG

•Acceptable for composite video signal and S video signal input
•Composite video signal and Y/C video signal are Loop-through

Inputs/Outputs:
VIDEO: Loop-through BNC
1.0 Vp-p ±2 dB sync negative, 75 Ω
S VIDEO:
Y IN: BNC
1.0 Vp-p ±2 dB sync negative, 75 Ω
C IN: BNC
0.3 Vp-p ±2 dB (PAL), 75 Ω or Burst 0.286 Vp-p ±2 dB (NTSC), 75 Ω
Y/C IN:
Y(luminance):
1.0 Vp-p ±2 dB sync negative, 75 Ω
C(chrominance):
0.3 Vp-p ±2 dB (PAL), 75 Ω or Burst 0.286 Vp-p ±2 dB (NTSC), 75 Ω

Dimensions: 233 (W) × 161 (H) × 43 (D) mm
(9¼ × 6⅜ × 1¾ inches)
Mass: 210 g (7.4 oz)

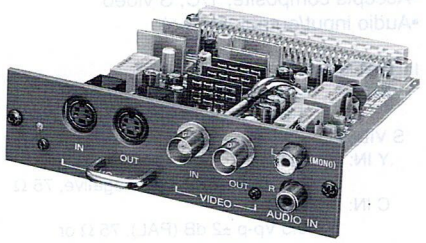
IFB-1000

Interface Board for VPH-G90E/G90M/ G70QM/G70QMG/G70VRM/D50QM, VPL-FE100E/FE100M/FX200E/ FX200M and IFU-1271M

Inputs:
- Composite*: Loop-through BNC
- Y/C*: Loop-through Mini DIN 4-pin
- Audio: Phono (stereo or monaural selectable)

Dimensions: 129 (W) × 35 (H) × 138 (D) mm (5⅛ × 1⁷⁄₁₆ × 5½ inches)

Mass: 160 g (5.6 oz)



* The Y/C IN has priority over the Composite IN.

IFB-1200

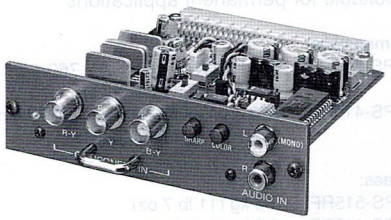
Interface Board for VPH-G70QM/ G70QMG/D50QM and IFU-1271M

•Can provide component input to a projector

Inputs:
- Component: (Y/R-Y/B-Y) BNC (3)
- Audio: Phono (stereo or monaural selectable)

Dimensions: 129 (W) × 35 (H) × 138 (D) mm (5⅛ × 1⁷⁄₁₆ × 5½ inches)

Mass: 180 g (6.3 oz)



DISPLAY PRODUCTS

IFB-1301

Interface Board for VPH-G70QM/ G70QMG/D50QM and IFU-1271M

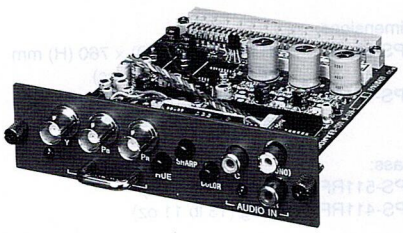
•HD (Y/P_B/P_R) input
•Converts Y/P_B/P_R signals to RGB signals
•Colour, Hue and Sharpness adjustment available
•Audio (Left (Mono)/Center/Right) input

Inputs:
- HD: BNC
- Y (luminance): 1.0 Vp-p ±2 dB, 75 Ω
- P_B/P_R (component): ±0.35 Vp-p, 75 Ω

Outputs:
- G/Y: 1.0 Vp-p ±2 dB, 75Ω
- B/R: 0.7 Vp-p ±2 dB, 75 Ω
- P_B/P_R: 0.35 Vp-p, 75 Ω
- AUDIO: Phono (stereo/monaural) 250 mV rms, impedance more than 47 kΩ

Dimensions: 129 (W) × 35 (H) × 138 (D) mm (5⅛ × 1⁷⁄₁₆ × 5½ inches)

Mass: 200 g (7 oz)



IFB-1400

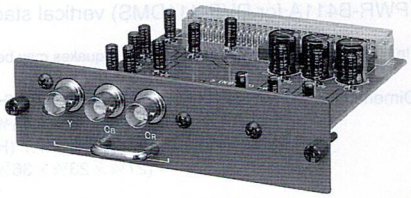
Interface Board for VPH-G90E/G90M G70QM/G70QMG/G70VRM/D50QM

•Accepts progressive (525P/480P) component

Inputs:
Progressive component: BNC type
- Y: 1.0 Vp-p ±2 dB sync negative, 75 Ω
- C_B: 0.7 Vp-p ±2 dB positive, 75 Ω
- C_R: 0.7 Vp-p ±2 dB positive, 75 Ω

Dimensions: 129 (W) × 35 (H) × 138 (D) mm (5⅛ × 1⁷⁄₁₆ × 5½ inches)

Mass: Approx. 140 g (5 oz)



IFB-X2000E

Interface Board for VPL-FE100E/FX200E

- Accepts composite, Y/C, S video
- Audio input/output (stereo)

Inputs/Outputs:

VIDEO: Loop-through BNC
1.0 Vp-p ±2 dB sync negative, 75 Ω

S VIDEO

Y IN: BNC
1.0 Vp-p ±2 dB sync negative, 75 Ω

C IN: BNC
0.3 Vp-p ±2 dB (PAL), 75 Ω or
Burst 0.286 Vp-p ±2 dB (NTSC), 75 Ω

Y/C IN: Loop-through Mini DIN 4-pin

Y (luminance):
1.0 Vp-p ±2 dB sync negative, 75 Ω

C (chrominance):
Burst 0.3 Vp-p ±2 dB (PAL), 75 Ω or
0.286 Vp-p ±2 dB (NTSC), 75 Ω

AUDIO IN: Phono, stereo, 500 mV rms, impedance more than 47 kΩ

Dimensions: 67 (W) × 136 (H) × 33 (D) mm
(2¾ × 5⅜ × 1⁵⁄₁₆ inches)

Mass: Approx. 145 g (5 oz)

VPS-515RF/415RF

- Screen with ultra-thin 0.2 mm screen surround for RVP-511DMS/411DMS
- Little disturbance of reproduced images
- Suitable for permanent applications

Dimensions:

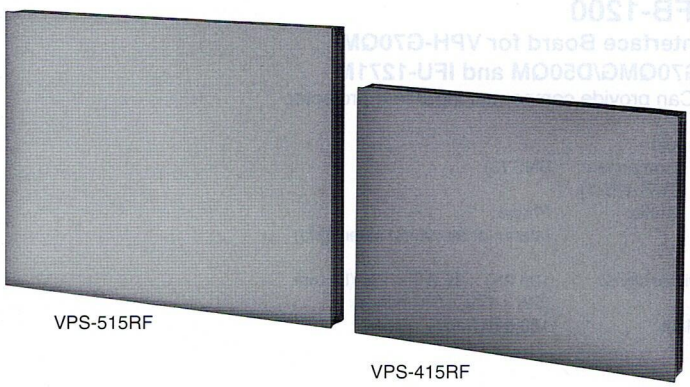
VPS-515RF: 1011.4 (W) × 84.2 (D) × 760.4 (H) mm
(39⅞ × 3⅜ × 30 inches)

VPS-415RF: 823.4 (W) × 84.2 (D) × 620.4 (H) mm
(32½ × 3⅜ × 24½ inches)

Mass:

VPS-515RF: 5.2 kg (11 lb 7 oz)

VPS-415RF: 3.7 kg (8 lb 3 oz)



VPS-515RF

VPS-415RF

VPS-511RF/411RF

- Screen with durable 1.7 mm screen surround for RVP-511DMS/411DMS
- Suitable for general applications

Dimensions:

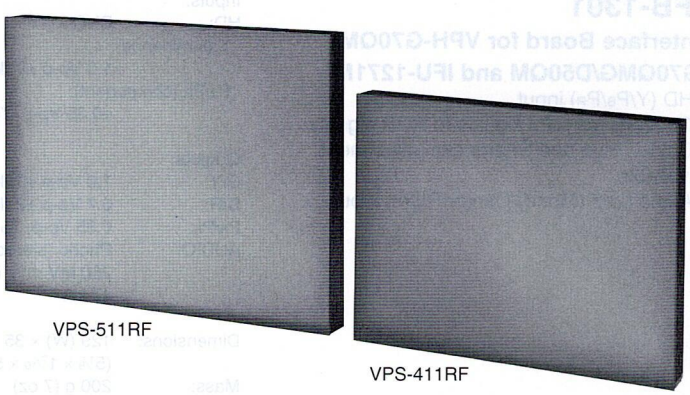
VPS-511RF: 1011 (W) × 87.1(D) × 760 (H) mm
(39⅞ × 3½ × 30 inches)

VPS-411RF: 823 (W) × 87.1(D) × 620 (H) mm
(32½ × 3½ × 24½ inches)

Mass:

VPS-511RF: 7.9 kg (17 lb 7 oz)

VPS-411RF: 6.2 kg (13 lb 11 oz)



VPS-511RF

VPS-411RF

PWR-B511A/B411A

Installation Stand for RVP-511DMS/411DMS

- Base stand for the RVP-511DMS/411DMS with casters and height-adjuster
- For up to 8 (PWR-B511A for RVP-511DMS) or 10 (PWR-B411A for RVP-411DMS) vertical stacks*

*In some cases, reinforcement against earthquakes may be required

Dimensions: PWR-B511A: 878 (W) × 587.7 (H) × 1126 (D) mm
(34⅝ × 23¼ × 44⅜ inches)

PWR-B411A: 690 (W) × 587.7 (H) × 934 (D) mm
(27¼ × 23¼ × 36⅞ inches)

Mass: PWR-B511A: 50 kg (110 lb 4 oz)

PWR-B411A: 44 kg (97 lb)

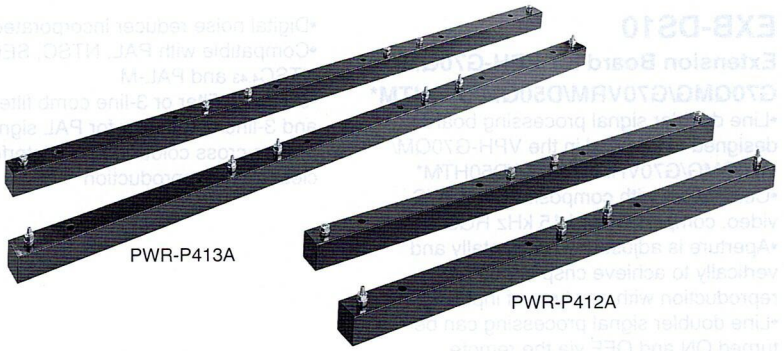
PWR-B511A

PWR-B411A

PWR-P512A/P513A/P412A/P413A

Position Beams for RVP-511DMS/411DMS

•A pair of position beams for dual or double mount horizontally of RVP-511DMS/ 411DMS •Can be utilized in combination with other PWR-P513A/P512A/P412A/ P413A beams for more than triple mount. •PWR-P512A for dual mount of the RVP-511DMS •PWR-P513A for triple mount of the RVP-511DMS •PWR-P412A for dual mount of the RVP-411DMS •PWR-P413A for triple mount of the RVP-411DMS



Dimensions:
- PWR-P512A: 1940 (W) × 80 (H) × 80 (D) mm (76½ × 3¼ × 3¼ inches)
- PWR-P513A: 2952 (W) × 80 (H) × 80 (D) mm (116¼ × 3¼ × 3¼ inches)
- PWR-P412A: 1564 (W) × 80 (H) × 80 (D) mm (61⅝ × 3¼ × 3¼ inches)
- PWR-P413A: 2388 (W) × 80 (H) × 80 (D) mm (94⅛ × 3¼ × 3¼ inches)

Mass:
- PWR-P512A: 24 kg (52 lb 15 oz)
- PWR-P513A: 36 kg (79 lb 6 oz)
- PWR-P412A: 20 kg (44 lb 1 oz)
- PWR-P413A: 30 kg (66 lb 2 oz)

PWB-411D

Composite Video Input Board for RVP-511DMS/411DMS

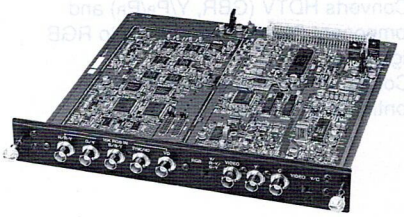
•Accepts composite, Y/C, component and 15kHz RGB video signals
•Compatible with PAL/NTSC/SECAM/NTSC4.43
•Includes field doubling circuit

Inputs

Composite video:
BNC × 1
1 Vp-p, sync negative, 75 Ω

Y/C:
BNC × 2
Y(luminance): 1.0 V p-p ±2 dB, sync negative, 75 Ω
C(chrominance): 0.3 Vp-p ±2 dB (PAL), 75 Ω, 0.286 Vp-p ±2 dB (NTSC), 75 Ω

RGB/component:
BNC ×5
R/R-Y: 0.7 Vp-p ±2 dB, 75 Ω
G: 0.7 Vp-p ±2 dB, 75 Ω
G on sync/Y: 1.0 Vp-p ±2 dB, sync negative, 75 Ω
B/B-Y: 0.7 Vp-p ±2 dB, 75 Ω
H sync/C sync: 1.0 to 4.0 Vp-p, 75 Ω, positive/negative
V sync: 1.0 to 4.0 Vp-p, 75 Ω, positive/negative



DISPLAY PRODUCTS

PWK-411D

System Control Kit for RVP-511DMS/411DMS

Includes accessories for system control:
•Infrared remote control unit **RM-PJ1292**
  •Wired/wireless remote control unit
  •Full remote operation
  •Function keys can be illuminated for operation in dark rooms
•SIRCS cable (10m)
•Batteries (AA size × 3)
•System manual

RM-PJ1292

CHP-411DM

Projection Wall Chassis for RVP-511DMS/411DMS

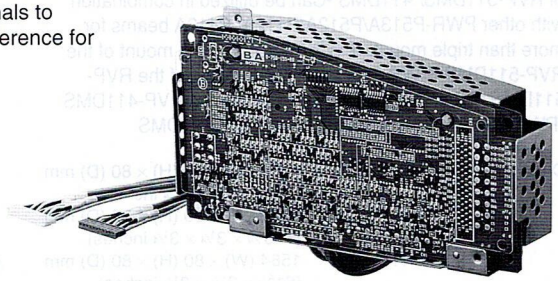
•Provides flexibility in various applications
•For added flexibility, can be combined with the RVP-511DMS/411DMS cabinet
•Can be used as a back-up chassis unit for RVP-511DMS/411DMS

Dimensions: 687 (W) × 469 (H) × 465 (D) mm (27⅛ × 18½ × 18⅜ inches)
Mass: 47 kg (103 lb 10 oz)
Supplied accessories:
AC power cord
Remote control cable (1.2 m)
Operation manual

EXB-DS10

Extension Board for VPH-G70QM/ G70QMG/G70VRM/D50QM/D50HTM*

•Line doubler signal processing board designed to be fitted in the VPH-G70QM/ G70QMG/G70VRM/D50QM/D50HTM*
•Compatible with composite video, Y/C video, component and 15 kHz RGB signals
•Aperture is adjustable horizontally and vertically to achieve crisp image reproduction with any type of input signal
•Line doubler signal processing can be turned ON and OFF via the remote commander or control panel
•Moving image correction circuitry is incorporated for natural reproduction of line-doubled fast-moving images
•Digital noise reducer incorporated
•Compatible with PAL, NTSC, SECAM, NTSC4.43 and PAL-M
•3D comb filter or 3-line comb filter for NTSC and 3-line comb filter for PAL signals to reduce cross colour and dot interference for clear image reproduction

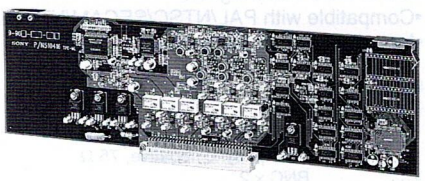


*The EXB-DS10 is supplied with the VPH-D50HTM.

EXB-5010

Extension Board for PC-3000

•Designed to connect an RGB monitor to the PC-3000
•Converts HDTV (GBR, Y/P_B/P_R) and component (Y/R-Y/B-Y) signals to RGB signal
•Colour, Hue and Sharpness can be controlled with EXB-5010



SIC-10

Signal Interface Cable for VPH-G90E/G90M/G70QM/G70QMG/ G70VRM/D50QM/D50HTM

Connector: 5BNC/5BNC
Length: 10 m (32.8 ft)

SIC-S20/S21/S22

Mouse Cables for VPL-PX30/PX20/S900E/ S900M/PX1

•Enables operation of a connected computer with the RM-PJM600/PJM610

Connector:
SIC-S20 for Macintosh
Mini DIN 4-pin (male) to computer
Square 13-pin (male) to MOUSE port of a projector
SIC-S21 for Serial
D-sub 9-pin (male) to Serial port
Square 13-pin (male) to MOUSE port of a projector
SIC-S22 for PS/2 (IBM PC/AT compatible) and Macintosh
Mini DIN 6-pin (male) to PS/2 port
Square 13-pin (male) to MOUSE port of a projector
Length: 2 m (6.6 ft)

SIC-S20/S22

SIC-S21

SMF-400

Monitor Cable for VPH-G70QM/ G70QMG/D50QM, VPL-FE100E/ FE100M/FX200E/FX200M/PX30/PX20/ S900E/S900M/PX1/CS1/VW10HT and VPD-LE100

Connector: HD D-sub 15-pin (male) to 5 BNC (male)
Length: 2 m (6.6 ft)

SMF-401

Signal Cable for VPH-G70QM/ G70QMG/D50QM, VPL-FE100E/ FE100M/FX200E/FX200M/PX30/PX20/ S900E/S900M/PX1 and VPD-LE100

Connector: HD D-sub 15-pin (male) to HD D-sub 15-pin (male)
Length: 2 m (6.6 ft)

SMF-402

Signal Cable for VPL-S900E/S900M/ PX1/CS1

Connector: HD D-sub 15-pin (male) to Phono × 3
Length: 5 m (16.4 ft)

SMF-410

Monitor Cable for VPL-PX30/PX20/CS1

Connector: HD D-sub 15-pin (male) to HD D-sub 15-pin (male)
Length: 2 m (6.6 ft)

SMF-D102

Digital Signal Cable for VPL-PX30/PX20

Connector: DFP 20-pin (male) to DFP 20-pin (male)
Length: 2 m (6.6 ft)

SMF-D110

Digital Signal Cable for VPL-PX30/PX20

Connector: DFP 20-pin (male) to DFP 20-pin (male)
Length: 10 m (32.8 ft)

RM-PJ10

Remote Control Receiver for VPH-G90E/G90M/G70QM/G70QMG/G70VRM/D50QM/D50HTM, VPL-FE100E/FE100M/FX200E/FX200M, VPD-LE100 and ADN-8080

Power requirements: DC 6 V
Dimensions: 100 (W) × 50 (H) × 57 (D) mm (4 × 2 × 2 1/4 inches) (including mounting bracket)
Mass: 0.1 kg (3.5 oz) (including mounting bracket)
Supplied accessories: Remote control cable: 15 m (45 ft), Screws

RM-PJD50

Remote Control Unit for VPH-G90E/G90M/D50HTM*

- Card type design
- Power on/off and input selection operation
- Direct video memory selection

Power requirements: CR2025 lithium battery (1)
Dimensions: 54 (W) × 86 (H) × 6.5 (D) mm (2 1/4 × 3 1/2 × 9/32 inches)
Mass: Approx. 21.7 g (0.8 oz)

*The RM-PJD50 is supplied with the VPH-D50HTM.

RM-PJ1001

Remote Control Unit for VPH-G90E*/G90M*/G70QM/G70QMG/G70VRM/D50QM/D50HTM* and VPL-FE100E/FE100M

- Wired/wireless remote control unit for setup and operation
- Full remote operation
- System set up (SYS SET) key for use with PJ COM (RS-485) system
- Keys can be illuminated for operation in dark rooms

Power requirements: DC 5 V (Size AA (R6) battery (3))
Dimensions: 165 (W) × 35 (H) × 141 (D) mm (6½ × 1 7/16 × 5¾ inches)
Mass: Approx. 285 g (10 oz)

*The RM-PJ1001 is supplied with the VPH-G90E/G90M/D50HTM.

RM-PJ3000S

Remote Control Unit for VPH-G90E/G90M/G70QM/G70QMG/G70VRM/D50QM, VPL-FE100E/FE100M/FX200E/FX200M and VPD-LE100

- Wireless remote control unit for simple remote control
- Function keys can be illuminated for operation in dark rooms
- Equipped with a laser pointer for use in presentations

Laser beam:
Laser type: Class II
Wave length: 645 nm
Output: 1 mW
Power requirements: DC 3 V (Size AA (R6) battery (2))
Dimensions: 45 (W) × 24 (H) × 178 (D) mm (1 13/16 × 31/32 × 7⅛ inches)
Mass: Approx. 93 g (3.3 oz)

RM-PJM610

Remote Control Unit for VPL-PX30*/PX20*/S900E/S900M/PX1/CS1

- Wireless remote control unit for presentations
- Digital zoom, function and help keys
- Equipped with a laser pointer

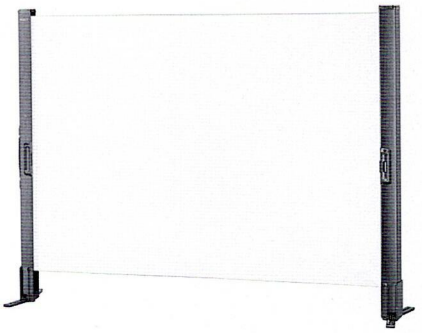
Laser beam:
Laser type: Class II
Wave length: 645 nm
Output: 1 mW
Power requirements: DC 3 V (Size AA (R6) battery (2))
Dimensions: 51 (W) × 42 (H) × 162 (D) mm (2⅛ × 6½ × 1 11/16 inches)
Mass: Approx. 130 g (4.6 oz)

*The RM-PJM610 is supplied with the VPL-PX30/PX20.

VPS-50C

Portable Screen

	VPS-50C
Screen size	50-inch
Construction	Beaded glass flat screen
Dimensions	Folded: 870 (W) × 88 (H) × 80 (D) mm (34 3/8 × 3½ × 3¼ inches) Assembled: 1131 (W) × 870 (H) × 240 (D) mm
Mass	2.3 kg (5 lb)



VPS-120FH*/100FH*

Video Screen

	VPS-120FH	VPS-100FH
Screen size	120-inch	100-inch compatible
Construction	Beaded glass high-efficiency flat screen with winding mechanism	
Dimensions	2780 (W) × 2545 (H) mm (109½ × 100¼ inches)	200 (W) × 1765 (H) mm (86¾ × 69½ inches)
Mass	21 kg (46 lb 5 oz)	8 kg (17 lb 10 oz)

*Not available in some areas. For details, please consult your nearest Sony office.

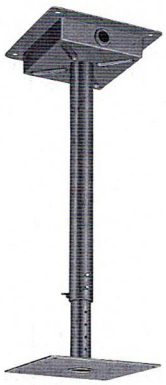
PSS-10/70/90/600/610/722/2000

Suspension Support

PSS-10 for PSS-70/90/722/800/2000
PSS-70 for VPH-G70QM/G70QMG/G70VRM/D50QM/D50HTM
PSS-90 for VPH-G90E/G90M
PSS-600 for VPL-S900E/S900M
PSS-610 for VPL-PX30/PX20/VW10HT
PSS-722 for VPH-V20M/V22M
PSS-2000 for VPL-FE100E/FE100M/FX200E/FX200M

1. Direct installation on the ceiling — PSS-70/90/500/600/610/722/2000
2. Installation on the ceiling (height adjustable) — PSS-10 + PSS-70 or PSS-90 or PSS-722 or PSS-2000

Mass:
PSS-10: 10.3 kg (22 lb 11 oz)
PSS-70: 9.0 kg (19 lb 13 oz)
PSS-90: 15 kg (33 lb 11 oz)
PSS-600: 2.7 kg (5 lb 15 oz)
PSS-610: 2.7 kg (5 lb 15 oz)
PSS-722: 1.8 kg (3 lb 15 oz)
PSS-2000: 5.5 kg (12 lb 2 oz)



PSS-10

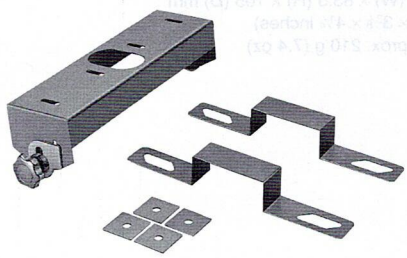
PSS-70

PSS-90

PSS-600

PSS-610

PSS-2000



PSS-722

DISPLAY PRODUCTS

LMP-600

Projector Lamp (for replacement) for VPL-S900E/S900M

•120 W UHP lamp

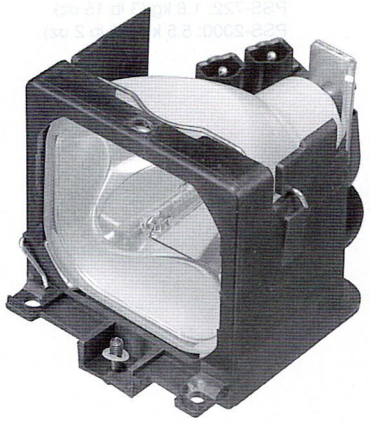
Dimensions: 75 (W) × 105 (H) × 83.5 (D) mm (2 5/16 × 4 1/8 × 3 5/16 inches)
Mass: 210 g (7.4 oz)

LMP-C120

Projector Lamp (for replacement) for VPL-CS1

•120 W UHP lamp

Dimensions: 65 (W) × 62.5 (H) × 91 (D) mm (2 5/8 × 2 1/2 × 3 5/8 inches)
Mass: Approx. 164 g (6 oz)

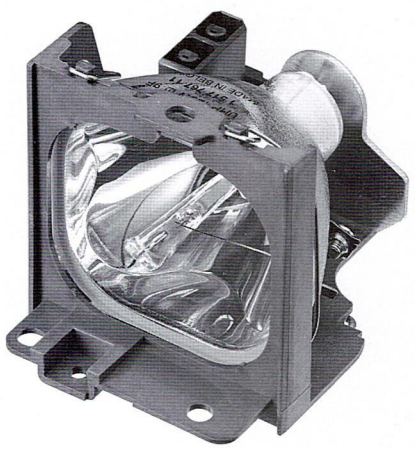


LMP-P120

Projector Lamp (for replacement) for VPL-PX1

•120 W UHP lamp

Dimensions: 75 (W) × 83.5 (H) × 105 (D) mm (3 × 3 3/8 × 4 1/4 inches)
Mass: Approx. 210 g (7.4 oz)



LMP-P200

Projector Lamp (for replacement) for VPL-PX30/PX20/VW10HT

•200 W UHP lamp

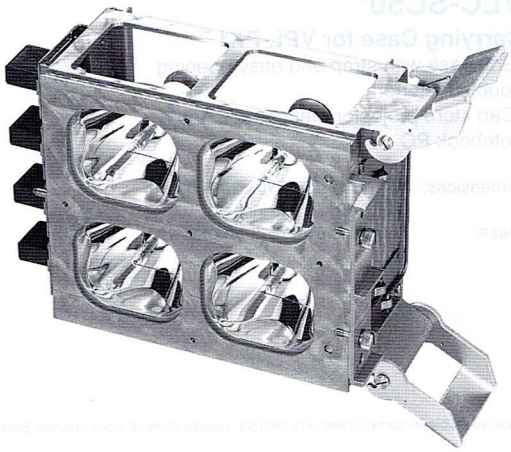
Dimensions: 74.5 (W) × 91.5 (H) × 107.5 (D) mm (3 × 3 5/8 × 4 1/4 inches)
Mass: Approx. 280 g (10 oz)

LMP-Q120

Quad Projector Lamp (for replacement) for VPL-FE100E/ FE100M/FX200E/FX200M

•Four 120 W UHP lamps

Dimensions: 220 (W) × 105 (H) × 147 (D) mm (8¾ × 4¼ × 5⅞ inches)
Mass: 1.4 kg (3 lb)



LMP-S120

Projector Lamp (for replacement) for LMP-Q120

•120 W UHP lamp

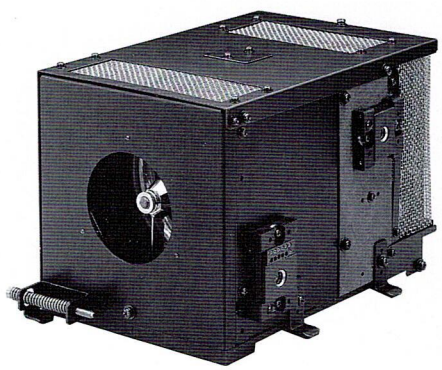
Dimensions: Approx. 70 (W) × 84 (H) × 65 (D) mm (Approx. 2⅞ × 3⅜ × 2⅝ inches)
Mass: 140 g (4 oz)

LMP-L2000

Projector Lamp (for replacement) for VPD-LE100

•2 kW Xenon lamp

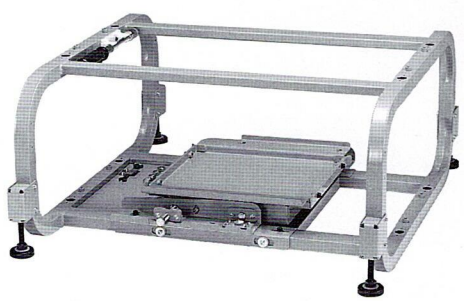
Dimensions: 165 (W) × 165 (H) × 250 (D) mm (6½ × 6½ × 9⅞ inches)
Mass: 3.4 kg (7 lb 4 oz)



SU-PJ2000

Projector Stand (for twin and triple stacking) for VPL-FE100E/FE100M/ FX200E/FX200M

Dimensions: 840 (W) × 360 (H) × 840 (D) mm (33⅛ × 14¼ × 33⅛ inches)
Mass: Approx. 32 kg (70 lb 6 oz)



VLC-SC50*

Carrying Case for VPL-PX1

•Soft case with strap and easy opening double fasteners
•Can store projector, peripherals and a notebook PC

Dimensions: 320 (W) × 250 (H) × 200 (D) mm (12⅝ × 9⅞ × 7⅞ inches)
Mass: Approx. 0.8 kg (1 lb 12 oz)

*Not available in some areas. For details, please consult your nearest Sony office.

VLC-600*

Carrying Case for VPL-PX30/PX20/ S900E/S900M

•Soft case with grip and removable strap
•Can store projector and peripherals

Dimensions: 358 (W) × 361 (H) × 138 (D) mm (14⅛ × 14⅛ × 6⅝ inches)
Mass: Approx. 1.4 kg (3 lb 1 oz)

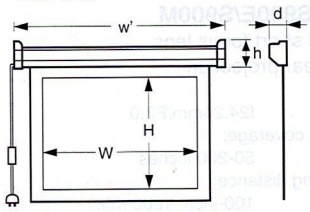
*Not available in some areas. For details, please consult your nearest Sony office.

VPE/VPL/VPM series (by Aurora)

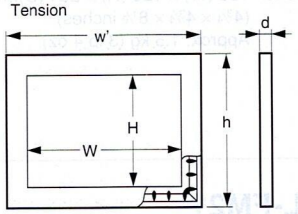
Video Screen

Type	Model name	Material	Screen size (W × H)mm	Dimensions (W × H × D)mm	Mass (kg)	Screen seam
Motor drive	VPE-150 (150-inch)	micro beads on white mat	3048 × 2286 (120 × 90.0 inches)	3455 × 150 × 118 (136 × 5.9 × 4.6 inches)	26	horizontal (1)
	VPE-170 (170-inch)	micro beads on white mat	3454 × 2591 (136 × 102 inches)	3862 × 150 × 118 (152 × 5.9 × 4.6 inches)	30	horizontal (1)
	VPE-200 (200-inch)	micro beads on white mat	4064 × 3048 (160 × 120 inches)	5812 × 310 × 248 (228.8 × 12.2 × 9.8 inches)	129	horizontal (1)
	VPE-220 (220-inch)	micro beads on white mat	4470 × 3353 (176 × 132 inches)	6238 × 310 × 248 (245.6 × 12.2 × 9.8 inches)	140	horizontal (1)
	VPE-250 (250-inch)	micro beads on white mat	5080 × 3810 (200 × 150 inches)	6928 × 310 × 248 (272.8 × 12.2 × 9.8 inches)	150	horizontal (2)
Tension	VPL-150 (150-inch)	micro beads on white mat	3048 × 2286 (120 × 90 inches)	3448 × 2286 × 55 (135.8 × 90 × 2.2 inches)	36	vertical (1)
	VPL-170 (170-inch)	micro beads on white mat	3454 × 2591 (136 × 102 inches)	3854 × 2991 × 55 (151.7 × 117.7 × 2.2 inches)	41	vertical (1)
	VPL-200 (200-inch)	micro beads on white mat	4064 × 3048 (160 × 120 inches)	4664 × 3648 × 55 (183.6 × 143.6 × 2.2 inches)	48	vertical (2)
	VPL-220 (220-inch)	micro beads on white mat	4470 × 3353 (176 × 132 inches)	5070 × 3953 × 55 (199.6 × 155.6 × 2.2 inches)	53	vertical (2)
	VPL-250 (250-inch)	micro beads on white mat	5080 × 3810 (200 × 150 inches)	5680 × 4410 × 55 (223.6 × 173.6 × 2.2 inches)	60	vertical (2)
Hang.up	VPM-150 (150-inch)	micro beads on white mat	3048 × 2286 (120 × 90 inches)	3292 × 2456 × 35 (129.6 × 96.7 × 1.4 inches)	9.5	horizontal (1)
	VPM-170 (170-inch)	micro beads on white mat	3454 × 2591 (136 × 102 inches)	3698 × 2761 × 35 (145.6 × 108.7 × 1.4 inches)	11	horizontal (1)
	VPM-200 (200-inch)	micro beads on white mat	4064 × 3048 (160 × 120 inches)	4584 × 3488 × 35 (180.5 × 137.3 × 1.4 inches)	12	horizontal (1)
	VPM-220 (220-inch)	micro beads on white mat	4470 × 3353 (176 × 132 inches)	5010 × 3813 × 35 (197.2 × 150.1 × 1.4 inches)	13	horizontal (1)
	VPM-250 (250-inch)	micro beads on white mat	5080 × 3810 (200 × 150 inches)	5700 × 4350 × 35 (224.4 × 171.2 × 1.4 inches)	15	horizontal (2)

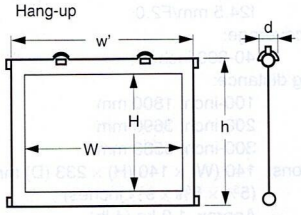
Motor drive



Tension



Hang-up



VPLL-FM20

Projection Lens for VPL-S900E/S900M

•Fixed short focus lens
•For rear projection

Lens: f24.24mm/F3.0
Screen coverage:
50-200 inches
Throwing distance:
100-inch: 1800 mm
200-inch: 3300 mm
Dimensions: 120 (W) × 120 (H) × 204 (D) mm
(4¾ × 4¾ × 8⅛ inches)
Mass: Approx. 1.5 kg (3 lb 4 oz)

VPLL-FM21

Projection Lens for VPL-PX30/PX20

•Fixed short focus lens

Lens: f24.5 mm/F2.0
Screen coverage:
40-300 inches
Throwing distance:
100-inch: 1800 mm
200-inch: 3690 mm
300-inch: 5580 mm
Dimensions: 140 (W) × 140 (H) × 233 (D) mm
(5⅝ × 5⅝ × 9¼ inches)
Mass: Approx. 1.9 kg (4 lb)

VPLL-FM30

Projection Lens for VPL-S900E/S900M

•Fixed short focus lens

Lens: f37 mm/F3.5
Screen coverage:
40-280 inches
Throwing distance:
100-inch: 2810 mm
200-inch: 5680 mm
280-inch: 7960 mm
Dimensions: 120 (W) × 120 (H) × 209 (D) mm
(4¾ × 4¾ × 8¼ inches)
Mass: 2.1 kg (4 lb 10 oz)

VPLL-ZM31

Projection Lens for VPL-PX30/PX20

•1.1 times zoom short focus lens

Lens: f41.4-45.6/F1.9-2.0
Screen coverage:
40-300 inches
Throwing distance:
100-inch: 3150-3300 mm
200-inch: 6410-6710 mm
300-inch: 9680-10120 mm
Dimensions: 154 (W) × 154 (H) × 252 (D) mm
(6⅛ × 6⅛ × 10 inches)
Mass: 3.1 kg (6 lb 13 oz)

VPLL-ZM101

Projection Lens for VPL-PX30/PX20/S900E/S900M

•1.5 times zoom long focus lens

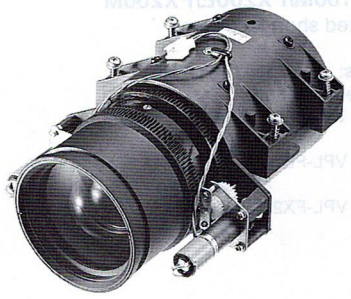
Lens: f89-133.5 mm/F2.0-2.6
Screen coverage:
40-300 inches
Throwing distance:
VPL-PX30/PX20
100-inch: 6810-10030 mm
200-inch: 13840-20270 mm
300-inch: 20870-30500 mm
VPL-S900E/S900M
100-inch: 6870-10120 mm
200-inch: 13960-20440 mm
300-inch: 21040-30760 mm
Dimensions: 100 (W) × 100 (H) × 221.9 (D) mm (4 × 4 × 8¾ inches)
Mass: 1.8 kg (3 lb 15 oz)

VPLL-Z2019

Projection Lens for VPL-FX200E/FX200M

•1.3 times zoom standard focus lens

Lens: f71.0-92.3mm/F2.5-3.0
Screen coverage:
40-500 inches
Throwing distance:
40-inch: 1490-1890 mm
100-inch: 3870-4880 mm
300-inch: 11820-14840 mm
Dimensions: 158 (W) × 115 (H) × 211 (D) mm (6¼ × 4⅝ × 8⅜ inches)
Mass: 2.4 kg (5 lb 4 oz)



VPLL-Z2025

Projection Lens for VPL-FE100E/FE100M/FX200E/FX200M

•1.6 times zoom long focus lens

Lens: f92.1-147.3mm/F2.6-3.5
Screen coverage:
VPL-FE100E/FE100M (5:4):
84-500 inches
VPL-FE100E/FE100M (4:3):
80-500 inches
VPL-FX200E/FX200M:
80-500 inches
Throwing distance:
VPL-FE100E/FE100M (5:4)
100-inch: 4830-7460 mm
200-inch: 9850-15090 mm
300-inch: 14860-22720 mm
VPL-FE100E/FE100M (4:3)
100-inch: 5170-7970 mm
200-inch: 10520-16120 mm
300-inch: 15870-24260 mm
VPL-FX200E/FX200M
100-inch: 5020-7750 mm
200-inch: 10220-15660 mm
300-inch: 15430-23580 mm
Dimensions: 158 (W) × 115 (H) × 277 (D) mm (6¼ × 4⅝ × 11 inches)
Mass: 3.8 kg (8 lb 6 oz)

VPLL-Z2039

Projection Lens for VPL-FE100E/FE100M/FX200E/FX200M

•1.5 times zoom long focus lens

Lens: f144.4-216.5mm/F2.8-3.6
Screen coverage:
VPL-FE100E/FE100M (5:4):
84-500 inches
VPL-FE100E/FE100M (4:3):
80-500 inches
VPL-FX200E/FX200M:
80-500 inches
Throwing distance:
VPL-FE100E/FE100M (5:4)
100-inch: 7690-11060 mm
200-inch: 15560-22280 mm
300-inch: 23420-33490 mm
VPL-FE100E/FE100M (4:3)
100-inch: 8220-11810 mm
200-inch: 16610-23780 mm
300-inch: 25000-35750 mm
VPL-FX200E/FX200M
100-inch: 7990-11480 mm
200-inch: 16150-23120 mm
300-inch: 24300-34760 mm
Dimensions: 158 (W) x 118.5 (H) x 321 (D) mm (6¼ × 4¾ × 12¾ inches)
Mass: 4.1 kg (9 lb)

VPLL-Z3020

Projection Lens for VPL-FE100E/FE100M

•1.3 times zoom standard focus lens

Lens: f74.5-97.0 mm/F2.0-2.4
Screen coverage:
(5:4): 42-500 inches
(4:3): 40-500 inches

Throwing distance:
(5:4)
100-inch: 3900-4920 mm
200-inch: 7920-9960 mm
300-inch: 11940-15000 mm
(4:3)
100-inch: 4170-5260 mm
200-inch: 8460-10040 mm
300-inch: 12750-16020 mm
Dimensions: 158 (W) × 115 (H) × 222.5 (D) mm (6¼ × 4⅝ × 8⅞ inches)
Mass: 2.7 kg (5 lb 15 oz)

VPLL-2009

Projection Lens for VPL-FE100E/FE100M/FX200E/FX200M

•Fixed short focus lens

Lens: f34.2 mm/F3.0
Screen coverage:
VPL-FE100E/FE100M (5:4):
42-500 inches
VPL-FE100E/FE100M (4:3):
40-500 inches
VPL-FX200E/FX200M:
40-500 inches

Throwing distance:
VPL-FE100E/FE100M (5:4)
42-inch: 650 mm
100-inch: 1730 mm
300-inch: 5460 mm
VPL-FE100E/FE100M (4:3)
40-inch: 660 mm
100-inch: 1860 mm
300-inch: 5830 mm
VPL-FX200E/FX200M
40-inch: 640 mm
100-inch: 1800 mm
300-inch: 5670 mm
Dimensions: 160 (W) × 160 (H) × 307 (D) mm (6⅜ x 6⅜ x 12⅛ inches)
Mass: 4.2 kg (9 lb 4 oz)

VPLL-2014

Projection Lens for VPL-FE100E/FE100M/FX200E/FX200M

•Fixed short focus lens

Lens: f51.9 mm/F3.0
Screen coverage:
VPL-FE100E/FE100M (5:4):
42-500 inches
VPL-FE100E/FE100M (4:3):
40-500 inches
VPL-FX200E/FX200M:
40-500 inches

Throwing distance:
VPL-FE100E/FE100M (5:4)
42-inch: 1040 mm
100-inch: 2650 mm
300-inch: 8200 mm
VPL-FE100E/FE100M (4:3)
40-inch: 1060 mm
100-inch: 2840 mm
300-inch: 8760 mm
VPL-FX200E/FX200M
40-inch: 1030 mm
100-inch: 2760 mm
300-inch: 8520 mm
Dimensions: 160 (W) × 160 (H) × 294.5 (D) mm (6⅜ × 6⅜ × 11⅝ inches)
Mass: 4.9 kg (10 lb 12 oz)

VPLL-2075

Projection Lens for VPL-FE100E/FE100M/FX200E/FX200M

•Fixed long focus lens

Lens: f269.1 mm/F3.5
Screen coverage:
VPL-FE100E/FE100M (5:4):
82-500 inches
VPL-FE100E/FE100M (4:3):
80-500 inches
VPL-FX200E/FX200M:
80-500 inches

Throwing distance:
VPL-FE100E/FE100M (5:4)
100-inch: 14460 mm
200-inch: 28760 mm
300-inch: 43050 mm
VPL-FE100E/FE100M (4:3)
100-inch: 15420 mm
200-inch: 30680 mm
300-inch: 45930 mm
VPL-FX200E/FX200M
100-inch: 15000 mm
100-inch: 29830 mm
300-inch: 44660 mm
Dimensions: 158 (W) × 115 (H) × 263.5 (D) mm (6¼ × 4⅝ × 10⅜ inches)
Mass: 3.1 kg (6 lb 13 oz)

VPLL-3050

Projection Lens for VPL-FE100E/FE100M

•Fixed long focus lens

Lens: f181.2 mm/F2.0
Screen coverage:
(5:4): 84-500 inches
(4:3): 80-500 inches
Throwing distance:
(5:4)
100-inch: 14460 mm
200-inch: 28760 mm
300-inch: 43050 mm
(4:3)
100-inch: 15420 mm
200-inch: 30680 mm
300-inch: 45930 mm
Dimensions: 158 (W) × 117 (H) × 211 (D) mm (6¼ × 4⅝ × 8⅜ inches)
Mass: 3.4 kg (7 lb 7 oz)

VPDL-Z1014

Projection Lens for VPD-LE100

•1.3 times zoom short focus lens

Lens: f33.5-44.6 mm/F3.0
Screen coverage:
70-700 inches
Throwing distance:
(5:4)
100-inch: 2830-3770 mm
200-inch: 5760-7670 mm
300-inch: 8690-11580 mm
(4:3)
100-inch: 3030-4030 mm
200-inch: 6150-8190 mm
300-inch: 9270-12360 mm
Dimensions: 184 (W) × 184 (H) × 329 (D) mm (7¼ × 7¼ × 13 inches)
Mass: 8.5 kg (18 lb 11 oz)

VPDL-Z1019

Projection Lens for VPD-LE100

•1.2 times zoom standard focus lens

Lens: f44.6-54.5 mm/F3.0
Screen coverage:
70-700 inches
Throwing distance:
(5:4)
100-inch: 3840-4660 mm
200-inch: 7740-9480 mm
300-inch: 11630-14190 mm
(4:3)
100-inch: 4100-4980 mm
200-inch: 8250-10060 mm
300-inch: 12410-15150 mm
Dimensions: 184 (W) × 184 (H) × 335.5 (D) mm (7¼ × 7¼ × 13¼ inches)
Mass: 6.5 kg (14 lb 5 oz)

VPDL-Z1023

Projection Lens for VPD-LE100

•1.6 times zoom middle focus lens

Lens: f54.5-87.0 mm/F3.0
Screen coverage:
70-700 inches
Throwing distance:
(5:4)
100-inch: 4610-7390 mm
200-inch: 9380-15000 mm
300-inch: 14150-22600 mm
(4:3)
100-inch: 4930-7900 mm
200-inch: 10010-16010 mm
300-inch: 15100-24120 mm
Dimensions: 184 (W) × 184 (H) × 285.7 (D) mm (7¼ × 7¼ × 11¼ inches)
Mass: 6.5 kg (14 lb 5 oz)

VPDL-Z1037

Projection Lens for VPD-LE100

•1.8 times zoom long focus lens

Lens: f87.0-152.3 mm/F3.0
Screen coverage:
70-700 inches
Throwing distance:
(5:4)
100-inch: 7430-13040 mm
200-inch: 15050-26370 mm
300-inch: 22670-39700 mm
(4:3)
100-inch: 7940-13930 mm
200-inch: 16070-28150 mm
300-inch: 24200-42360 mm

Dimensions: 184 (W) × 184 (H) × 383 (D) mm
(7¼ × 7¼ × 15⅛ inches)
Mass: 8.5 kg (18 lb 11 oz)

ADN-8080 (PAL/NTSC/SECAM)

JJTRON Display System

•16:9 aspect, 80-inch LED-based display for indoor advertising •8 mm pitch Surface Mounted Device type LEDs, with each pixel made up of individual R, G and B LEDs •High brightness of 1,000 cd/m² for indoor use •224 x 120 pixel resolution •Signal processor and screen in one "Plug and Play" system •High contrast and reliability assured with the "Black Mask" on the screen surface •Lightweight and compact •Full 10-bit digital processing (1024 colour gradation) •Advanced colour reproduction with the colour compensation circuit •On-screen menu for adjustment/setting •Various remote control capabilities: supplied remote commander RM-JJ100, Control S and RS-422

Supplied accessories:	Remote commander RM-JJ100 Remote control cable (15 m)
Optional accessory:	Video input board BKJ-100 Remote control receiver RM-PJ10

Specifications

Picture performance

Device:	Full color one-chip SMD type LED
Pixel pitch:	8 mm × 8 mm
Viewable picture area:	1792 (W) × 960 (H) mm (70⅝ × 37⅞ inches) 2033 mm (measured diagonally) (80 inches)
Aspect ratio:	16:9
Color system:	PAL/NTSC/SECAM automatic switching (When BKJ-100 is attached)
Brightness:	1,000 cd/m² (white peak initial value)
Pixel density:	15,625 pixels/m²
Number of pixels (RGB trio):	
	224 (W) × 120 (H) = 26,880 dots
Colour temperature:	7000 K
Signal processing:	Full 10 bit
Viewing angle:	Horizontal 145° Vertical 145°
LED half brightness period:	
	40000 H (Video), 70000 H (All white)

General

Dimensions:	1880 (W) × 1060 (H) × 260 (D) mm (approx.) (74⅛ × 41¾ × 10¼ inches)
Current consumption:	Max. 12 A
Power requirements:	AC 200 to 240 V ±10%, 50/60 Hz
Mass:	110 kg (approx.) (50 lbs)
Waterproofing:	Not applicable (indoor use only)
Operating temperature:	0 to 40 °C (32 to 104 °F)
Operating humidity:	35 to 85% (without condensation)
Storage temperature:	-20 to 60 °C (-4 to 140 °F)
Storage humidity:	10 to 90% (without condensation)

Inputs

INPUT A:

Frequency (fH/fV):	31.25 kHz/50 Hz, 31.5 kHz/60 Hz
Double scanned RGB:	
	BNC × 5
R:	0.7 Vp-p ±2 dB positive, 75 Ω terminated
G:	0.7 Vp-p ±2 dB positive, 75 Ω terminated
Sync on G:	1.0 Vp-p ±2 dB sync negative, 75 Ω terminated
B:	0.7 Vp-p ±2 dB positive, 75 Ω terminated
HD/COMP SYNC:	
Composite sync:	1.0 to 4.0 Vp-p sync positive/negative, 75 Ω terminated
Horizontal sync:	1.0 to 4.0 Vp-p sync positive/negative, 75 Ω terminated
VD:	
Vertical sync:	1.0 to 4.0 Vp-p sync positive/negative, 75 Ω terminated
Remote:	
Control S IN/OUT:	Mini jack, 5.0 Vp-p
RS-422 IN/OUT:	D-sub 9-pin (Female)

INPUT B (when BKJ-100 is attached):

Frequency (fH/fV):	15.625 kHz/50 Hz, 15.75 kHz/60 Hz
Composite video:	BNC × 1, 1.0 Vp-p, sync negative, 75 Ω terminated
Analogue RGB/YUV:	BNC × 5
R/R-Y:	0.7 Vp-p ±2 dB positive, 75 Ω terminated
G:	0.7 Vp-p ±2 dB positive, 75 Ω terminated
Sync on G/Y:	1.0 Vp-p ±2 dB sync negative, 75 Ω terminated
B/B-Y:	0.7 Vp-p ±2 dB positive, 75 Ω terminated
HD/COMP SYNC:	
Composite sync:	1.0 to 4.0 Vp-p sync positive/negative, 75 Ω terminated
Horizontal sync:	1.0 to 4.0 Vp-p sync positive/negative, 75 Ω terminated
VD:	
Vertical sync:	1.0 to 4.0 Vp-p sync positive/negative, 75 Ω terminated

Regulation compliance

UL (1950), c-UL (CSA C 22.2 No. 950), TUV (EN 60950), FCC Class A, IC Class A, CE Class B, C-Tick, VCCI Class A, JEIDA

BKJ-100

JJTRON Accessory Board

•Video input board for ADN-8080
•Composite, YUV, RGB inputs

Dimensions:	41.5 (W) × 187 (H) × 55 (D) mm (1 11/16 × 7 3/8 × 2 1/4 inches)
Mass:	200 g (7 oz)

DSC-1024HD

Digital Scan Converter

•Versatile upward and downward digital scan converter •Input accepted in the 15.6 to 70 kHz horizontal frequency range and the 50 to 120 Hz vertical frequency range and output at an industry standard 15.6 kHz, 31.5 kHz, 33.75 kHz (1080i*), 37 kHz, 48 kHz or 64 kHz frequency •Built-in transcoder for universal conversions between video signal formats •Genlock function is available •PAL/NTSC conversion capability •Scan doubler capability •Automatic input signal recognition •Variable offset sampling and high-density vertical interpolation capability for conversion resolutions •Adjustable aspect ratios •Built-in test pattern generator •Zoom, pan and freeze frame functions provided for easy operation •On-screen display for adjustment/operation

* When a 1080i signal is output, a fV (60 Hz/59.94 Hz) is selectable on the on-screen display menu.

Supplied accessories:	D-sub 15-pin to 5 BNC cable (6 ft.) Operation manual
Optional accessories:	Rack mount bracket MB-510 D-sub 15-pin to 5 BNC cable SMF-400 D-sub 15-pin to D-sub 15-pin cable SMF-401 Remote commander RM-854, RM-PJ1292, RM-PJ1001, etc.

Specifications

General

Power requirements:	AC 220 to 240 V, 50/60 Hz
Power consumption:	30 W (max. power on), 3 W (typical power off)
Operating temperature:	0 to 35 °C (32 to 96 °F)
Dimensions:	424 (W) × 44 (H) × 354 (D) mm (16¾ × 1¾ × 14 inches)
Mass:	4.1 kg (9 lb 1 oz)

Input connector

Video 1:	Composite: Loop-through BNC S Video: Loop-through Mini DIN 4-pin
Video 2:	Composite (composite/-/-), Component (G/B/R, Y/B-Y/R-Y): Loop-through D-sub 15-pin
Video 3:	Component (G/B/R, Y/B-Y/R-Y): Loop-through D-sub 15-pin
Audio1/2/3:	L/R RCA jack

Output connector

Video out: Composite:	BNC
S Video:	MINI DIN 4-pin
Component (G, B, R, B-Y/R-Y):	D sub 15-pin
Audio:	L/R RCA jack

Signal level

Composite:	1.0 Vp-p (typical), (Video 1: Automatic 75 Ω termination, Video 2: 75 Ω/Hi-Z)	
S Video:	Y: 1.0 Vp-p (typical), sync negative C: 0.3 Vp-p (PAL)/0.286 Vp-p (NTSC) (typical) Automatic 75 Ω termination	
Component:	G/B/R input:	0.714 Vp-p (typical) (Video 2: auto sync, Video 3: sync on G/external sync, switchable), 75 Ω/Hi-Z HV.sync/c.sync: 1.0 to 5.0 Vp-p
	G/B/R output:	0.714 Vp-p (typical) (with external sync), 75 Ω (typical) HV.sync/c.sync: TTL
	Y/B-Y/R-Y input:	0.7 Vp-p (typical) (PAL/NTSC, sync on Y), 75 Ω/Hi-Z
	Y/B-Y/R-Y output:	0.7 Vp-p (typical) (with sync on Y), 75 Ω (typical)

Format conversion

Capture range:	fH: 15.6 to 70 kHz, fV: 50 to 120 Hz
Sampling rate:	14.3 to 40 MHz offset phase max. (Equivalent to 80 MHz sampling)
Output pixel clock:	14.3 to 50 MHz
Line doubler:	Line doubled vertically for each field
Genlock	Reference: Black/burst signal on VIDEO1 input Applicable to PAL/NTSC outputs only Genlock ON/OFF, SCH adjustment
Picture adjustment:	CONTRAST/PHASE (except for GBR/YBR/PAL)/ CHROMA (except for GBR) SIZE/CENTER/ZOOM (×2, ×3, ×4)/APERTURE (ON/OFF)/STILL (ON/OFF)

Regulation compliance

Europe:	GS mark (EN 60 950/1992) CE mark (EN 55 022/1994 class B, EN 50 082-1/1992, EN 61000-3-2/1995)
Nordic:	DEMKO/SEMKO/NEMKO/FIMKO safety approvals

DSC-1024G

Digital Scan Converter

•Versatile upward and downward digital scan converter •Input accepted in the 15.6 to 70 kHz horizontal frequency range and the 50 to 120 Hz vertical frequency range and output at an industry standard 15.6 kHz, 31.5 kHz, 37 kHz, 48 kHz or 64 kHz frequency •Built-in transcoder for universal conversions between video signal formats •Genlock function is available •PAL/NTSC conversion capability •Scan doubler capability •Automatic input signal recognition •Variable offset sampling and High-density vertical interpolation capability for conversion resolutions •Adjustable aspect ratios •Built-in test pattern generator •Zoom, pan and freeze frame functions provided for easy operation •On-screen display for adjustment/operation

Supplied accessories:	D-sub 15-pin to 5 BNC cable (6 ft.) Operation manual
Optional accessories:	Rack mount bracket MB-510 D-sub 15-pin to 5 BNC cable SMF-400 D-sub 15-pin to D-sub 15-pin cable SMF-401 Remote commander RM-PJ1000, RM-PJ1292, RM-1271, RM-PJM500, RM-PJM800, etc.

Specifications

General

Power requirements:	AC 220 to 240 V, 0.25 A (max.), 50/60 Hz
Power consumption:	30 W (max. power on), 3 W (typical power off)
Operating temperature:	0 to 35 °C (32 to 96 °F)
Dimensions:	424 (W) × 44 (H) × 354 (D) mm (16¾ × 1¾ × 4 inches)
Mass:	4.1 kg (9 lb 1 oz)

Input connector

Video 1:	Composite: Loop-through BNC S Video: Loop-through Mini DIN 4-pin
Video 2:	Composite: Loop-through BNC S Video: Loop-through Mini DIN 4-pin
Video 3:	Component (R/G/B, Y/R-Y/B-Y) Loop-through D sub 15-pin
Audio1/2/3:	L/R RCA jack

Output connector

Video out: Composite:	BNC
S Video:	MINI DIN 4-pin
Component (R/G/B, Y/R-Y/B-Y):	D sub 15-pin
Audio:	L/R RCA jack

Signal level

Composite:	1.0 Vp-p (typical), Automatic 75 Ω termination	
S Video:	Y: 1.0 Vp-p (typical), sync negative C: 0.3 Vp-p (PAL)/0.286 Vp-p (NTSC) (typical) Automatic 75 Ω termination	
Component:	R/G/B input:	0.714 Vp-p (typical)(sync on G/external sync, switchable), 75 Ω/Hi-Z HV.sync/c.sync: 1.0 to 5.0 Vp-p
	R/G/B output:	0.714 Vp-p (typical) (with external sync), 75 Ω (typical) HV.sync/c.sync: TTL
	Y/R-Y/B-Y input:	0.7 Vp-p (typical) (PAL/NTSC, sync on Y), 75 Ω/Hi-Z
	Y/R-Y/B-Y output:	0.7 Vp-p (typical) (with sync on Y), 75 Ω (typical)

Format conversion

Capture range:	fH: 15.6 to 70 kHz, fV: 50 to 120 Hz
Sampling rate:	14.3 to 40 MHz offset phase max. (Equivalent to 80 MHz sampling)
Output pixel clock:	14.3 to 50 MHz
Line doubler:	Line doubled vertically for each field
Genlock	Reference: Black/burst signal on VIDEO1 input Applicable to PAL/NTSC outputs only Genlock ON/OFF, SCH adjustment
Picture adjustment:	CONTRAST/PHASE (except for RGB/YBR/PAL)/ CHROMA (except for RGB) SIZE/CENTER/ZOOM (×2, ×3, ×4)/APERTURE (ON/OFF)/STILL (ON/OFF)

Regulation compliance

Europe:	GS mark (IEC-950, TÜV) CE mark (EN-60950/EN-5082/EN55022 class B)
Nordic:	DEMKO/SEMKO/NEMKO/EI safety approvals

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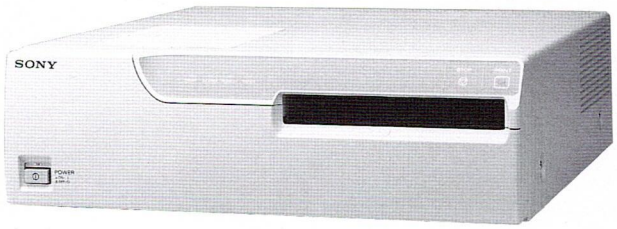
UPX-C21

Digital instant pass photo system

•High quality prints suitable for ID (Identification) photographs
•Image can be checked on the LCD monitor before printing
•Alternative operating methods (no PC required)
  •docking with the Camera Station
  •via Camera Station RS-232C port, without docking

Supplied accessories:
Operation manual (1)
Set up/Quick reference sheet (1)
Interface cabel (1)
AC adaptor (1)
AC power cable for printer (1)
AC power cable for AC adaptor (1)
Paper tray (for UPC-2040A/2045/2070E) (1)
Paper tray (for UPC-20S16/20S04/20S01/2010/2020) (1)
Paper cover (1)
Roller cleaning kit (1)
Lithium ion battery NP-F550 (1)

Optional accessories:
Self-laminating colour printing pack UPC-2040A (for 120 prints)
Self-laminating colour printing pack UPC-2045 (for 120 prints)
Colour postcard printing pack UPC-2070E (for 150 prints)
16-split Self-adhesive pre-cut colour printing pack UPC-20S16 (for 200 prints)
4-split Self-adhesive pre-cut colour printing pack UPC-20S04 (for 200 prints)
Self-adhesive colour printing pack UPC-20S01 (for 200 prints)
Colour printing pack UPC-2010 (for 200 prints)
Black and white printing pack UPC-2020 (for 200 prints)
Remote control unit RM-91
Paper ejector UPA-2001
Roller cleaning kit UPA-2003
AC adaptor PCS-AC08



Specifications

UPX-C21

Safety standards: EN60950, EN61000-3-2, EN61000-3-3, UL 1950, CSA C22.2 No. 950
EMC: EN50081-1 class B, EN50082-1 class B, AS/NZS-4251.1, AS/NZS-4252.1,
FCC PART15 Class A Digital Equipment,
IC ES-003 Class A Digital Equipment

(Digital Camera)

Imager: 1/2.7-inch IS CCD with 1,300,000 pixels
Data size: SXGA
Compression: JPEG
Memory: Internal memory
Image capacity: Hi1: Minimum 5 images(SXGA)
Hi2: Minimum 10 images(SXGA)
S: 30 images(VGA)
White balance:
  Internal flash mode: AWB/Manual (4,000/4,400/4,800/5,200/5,600/6,000/Auto/One push W.B)
  External flash mode: Manual (4,000/4,400/4,800/5,200/5,600/6,000/6,500/7,000K)
Lens: Zoom (12 mm-15.6 mm)
Iris: 2 position F4.7 (T)-F4 (W), F13.5 (T)-F11.4 (W)
Auto exposure: Except external flash light
Focus: Auto focus(0.8 m and over)
Flash: Internal flash (with Defuser, GN9), X terminal, Hot shoe
Data transfer time (Camera-Docking station):
Approx. 5 sec (VGA mode)
Shutter speed: Auto, 1/250 seconds (External flash mode)
Sensitivity: ISO 100 equivalent
LCD display: 1.8-inch TFT colour LCD (Angle adjustable)
Optical view finder: Equipped
Digital interface: RS-232C (to Docking Station or PC)
Video output: Composite video (1)
Power supply: Lithium Ion Battery, DC IN 8.4V
Battery charge: on Docking Station
Power save mode: Equipped
Dimensio: 219 (W) × 200 (H) × 71 (D) mm (8⅝ × 7⅞ × 2⅞ inches)
Mass: Approx. 1 kg (2 lb 3 oz)

(Docking Station)

Dimension: 208 (W) × 44 (H) × 188 (D) mm (8¼ × 1¾ × 7½ inches)
Mass: Approx. 550 g (1 lb 3 oz)

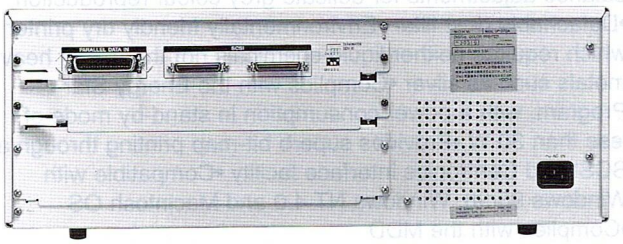
(Printer)

Printing method: Dye transfer sublimation thermal printing
Resolution: 310 dpi
Gradation: 256 levels each for Yellow, Magenta and Cyan (16.7 million colours per dot)
Paper tray capacity: 200 sheets
Power requirement: 220 to 240V, 50/60Hz
Power consumption: Approx. 1.0A
Printing time: Approx. 97 seconds (UPC-2040A)
Approx. 70 seconds (UPC-2045)
Approx. 50 seconds (UPC-2070E/20S16/20S04/20S01/2010/2020)
Dimension: 370 (W) × 125 (H) × 417 (D) mm (14⅝ × 5 × 16½ inches)
Mass: 9.5 kg (23 lb 2 oz)

UP-D70A

Digital colour printer

•Photo quality and high speed digital colour printing with 300dpi •256 gradations and over 16 million colour reproduction per pixel •A4 size print (210 × 297mm/8 3/8 × 11 3/4 inches) in approx. 85 seconds (Approx. 55 seconds in the 150 dpi print mode) •Provides superb bit-map printing through a SCSI and Centronics interface facility •Full-bleed A4 size (216 × 297mm/8 5/8 × 11 3/4 inches) image printing •Grey balance adjustments for delicate grey colour reproduction •Colour management by ICC profiles •A wide range of optional accessories including printer driver software, add-on memory, for easy system expansion •Compatibility with Windows® 95/98/NT and Macintosh® OS



Supplied software* (provided by hybrid CD-ROM)
- Printer driver (SCSI, Centronics) for Windows for Work Groups 3.11, Windows 3.1, Windows 95/98
- Printer driver (SCSI) for Windows NT4.0
- Chooser driver for Mac OS
- Photoshop plug-in (SCSI, Centronics) for Windows for Work Groups 3.11, Windows 3.1, Windows 95/98
- Photoshop plug-in (SCSI) for Windows NT4.0
- Photoshop plug-in for Mac OS
- Test chart data for grey balance adjustment (TIFF and Photoshop format)
- ICC profiles

Supplied accessories:
- Ink Ribbon Holder
- Paper Tray
- Paper Cover
- AC Power Cable
- Operation Manual
- Fan Filter
- Thermal Head Cleaning Kit

Optional Print Packs:
- A4 size self-laminating colour print UPC-740
- A4 plus size self-laminating colour print pack UPC-747
- A4 size colour print pack UPC-8810
- A4 plus size colour print pack UPC-8817
- A4 size B&W print pack UPC-8820
- A4 size seif-laminating colour print pack UPC-8840A

Specifications

Printing Method:	Dye transfer sublimation thermal printing		
Resolution:	300 dpi or 150 dpi selectable		
Gradations:	256 levels each for YMC (16.7 million colours per dot)		
Effective Print Pixels:	A4 Size:	300 dpi; 2,400 × 3,208 dots	
		150 dpi; 1,200 × 1,604 dots	
	A4 Plus Size:	300 dpi; 2,550 × 3,508 dots	
		150 dpi; 1,275 × 1,754 dots	
Print Area:	A4 Size:	203.2 × 271.6 mm (8 × 10 3/4 inches)	
	A4 Plus Size:	216× 297 mm (8 5/8 × 11 3/4 inches)	
Paper Area:	A4 Size:	210 × 297 mm (8 3/8 × 11 3/4 inches)	
	A4 Plus Size:	222 × 322.4 mm (8 7/8 × 12 3/4 inches)	
Printing Time: (Colour)		Standard	Laminating
	A4 Size:	300 dpi; 85 sec.	115 sec.
		150 dpi; 55 sec.	85 sec.
	A4 Plus Size:	300 dpi; 90 sec.	130 sec.
		150 dpi; 60 sec.	95 sec.
Printing Time: (B/W)		Standard	
	A4 Size:	300 dpi; 55 sec.	
		150 dpi; 35 sec.	

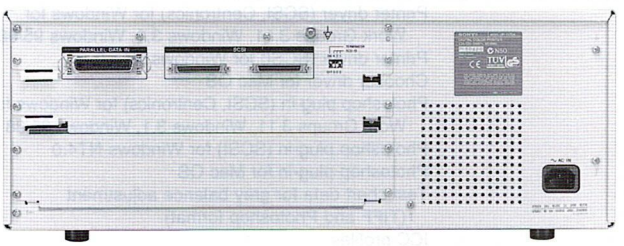
Paper Tray Capacity:	100 sheets
Interface:	SCSI and Centronics
Picture Memory:	30MB
Power Requirements:	AC220 to 240V, 50/60Hz
Power Consumption:	Max. 260W Less than 30W (Stand-by mode)
Dimensions:	493.8(W) × 189(H) × 468.8(D)mm (19 1/2 × 7 1/2 × 18 1/2 inches)
Mass:	19 kg (41 lb 14 oz)
Safety Standards:	EN60950

* Printer driver for Silicon graphics WS is provided as freeware from SonyDrive.
The newest driver software is provided at the following address: http://www.sony.co.jp/DP-driver-E.

UP-D70XR

Digital medical printer

•Designed to achieve optimum print quality from digital medical modalities with both colour and greyscale outputs •X-ray images are clearly reproduced on the UPT-730BL Blue Thermal Transparent Film •Prints X-ray images out in just 44 seconds (using UPT-730BL Blue Thermal Film) •Photo quality colour printing with dye sublimation printing technology •Colour A4 size image is printed out in approximately 85 seconds (in 300 dpi mode) or 55 seconds (in 150 dpi mode) or 115 seconds on lamination media •Complies with DICOM* standard with optional UPA-D3 Digital Print Server •Can daisy chain up to six printers and receive data or commands on TCP/IP protocols •Grey balance adjustments for delicate grey colour reproduction •Detachable dust filter •Environmentally friendly dry printer which requires neither liquid chemicals nor the use of heavy metals such as silver •Complies with the Energy Star Program, with a power consumption in stand-by mode of less than 30 W •Provides superb bit-map printing through a SCSI and Centronics interface facility •Compatible with Windows 95/98, Windows NT 4.0 and Macintosh OS •Complies with the MDD



* DICOM (the Digital Imaging Communication in Medicine) is standardised by ACR (The American College of Radiology) and NEMA (the National Electrical Manufactures Association).

Supplied software (provided by hybrid CD-ROM):
- Printer Driver (SCSI, Centronics) for Windows for Work groups 3.11, Windows 3.1, Windows 95/98
- Printer Driver (SCSI) for Windows NT 4.0
- Chooser Driver for Mac OS
- PhotoShop plug-in (SCSI, Centronics) for Windows for Work groups 3.11, Windows 3.1, Windows 95/98
- PhotoShop plug-in (SCSI) for Windows NT 4.0
- PhotoShop plug-in for Mac OS
- Test chart data for grey balance calibration (TIFF and PhotoShop format)
- ICC Profiles

Supplied accessories:
- Ink Ribbon Holder (1)
- AC Power Code (1)
- Fan Filter (1)
- Paper Tray (1)
- Paper Cover (1)
- CD-ROM* (1)
- Bottom Cover (1)
- Operation Manual (1)
- Thermal Head Cleaning Kit

Optional accessories: DICOM Print Server UPA-D3

Optional Print Packs:
- A4 Size Colour Print Pack (100 prints) UPC-8810
- A4 Size B/W Print Pack (100 prints) UPC-8820
- A4 Size Self-laminating Colour Print Pack (72 prints) UPC-740
- A4 Size Thermal Blue Transfer Film (100 prints) UPT-730BL
- A4 Plus Size Colour Print Pack (100 prints) UPC-8817

Specifications

Printing Time (Colour):		Standard	Laminating
A4 Size:	300 dpi;	approx. 85 s	approx. 115 s
	150 dpi;	approx. 55 s	approx. 85 s
A4 Plus Size:	300 dpi;	approx. 90 s	
	150 dpi;	approx. 60 s	

Printing Time (B/W):		Standard
A4 Size:	300 dpi;	approx. 55 s
	150 dpi;	approx. 35 s

Printing Time (UPT-730BL):		Standard
A4 Size:	300 dpi;	approx. 44 s

Printing Method:	Dye-Sublimation Printing (Colour & B/W) Direct Thermal Printing (UPT-730BL)
Resolution:	300 dpi / 150 dpi selectable
Gradation:	256 levels each for Yellow, Magenta and Cyan
Effective Print Pixels:	
A4 Size:	300 dpi; 2,400 × 3,208 dots 150 dpi; 1,200 × 1,604 dots
A4 Plus Size:	300 dpi; 2,550 × 3,508 dots 150 dpi; 1,275 × 1,754 dots
Print Area:	
A4 Size:	203.2 × 271.6 mm (8 × 10 ¾ inches)
A4 Plus Size:	216 × 297 mm (8 ⅝ × 11 ¾ inches)
Paper Size:	
A4 Size:	210 × 298 mm (8 ¼ × 11 ¾ inches)
A4 Plus Size:	222 × 322.4 mm (8 ¾ × 12 ¾ inches)
Memory:	30 MB
Interface:	SCSI, Centronics
Paper tray capacity:	100 sheets (max.)
Power consumption:	270 W (UC) (max.) 260 W (CE) (max.) Less than 30 W (stand-by mode)
Power requirements:	AC 220 to 240 V, 50/60 Hz (CE)
Dimensions:	493.8* (W) × 189 (H) × 468.8 (D) mm (19 ½* × 7 ½ × 18 ½ inches) (*502.3 mm (19 ¾ inch) with fan filter)
Mass:	19 kg (41 lb 14 oz)
Safety standards:	EN60950, EN60601-1, MDD, CE mark

UP-D6500/D6400/D6300

Digital colour printer

•Superb quality digital colour printer for ID card production •Dual-side printing (ISO 7810 standard card) •Quick data download and high speed thermal lamination process — 45 s with CMYL ribbon •SCSI-2 high-speed interface for high volume applications (UP-D6500) •Magnetic stripe encoding (UP-D6500/D6400) •Anti-forgery security lamination •Template memory*1 feature (UP-D6500/D6400) •Holds up to approx. 125*2 (UP-D6500: 250*3) cards in the optional card feeder and card stacker •Compatibility with Windows® 95/98*4 and NT OS

UP-D6500 with UPA-6003 Auto Card Feeder

UP-D6500

UP-D6400/D6300

Supplied accessories:	Floppy Disk (1) AC Power Cable (1) Card Tray (1) Operational Manual (1) Ink Ribbon Holder (1) Cleaning Roller Holder Set (1)
Consumables:	5UPR-6040 Colour Ink Ribbon (CMYL) 250 prints × 5 rolls 5UPR-6080 Colour Ink Ribbon (CMYKL) 200 prints × 5 rolls UPR-6025 Black and White Ribbon (K) Approx. 1000 prints × 1 roll
Optional accessories:	UPA-6002 Auto Card Stacker UPA-6003 Auto Card Feeder UPU-D65H Thermal Head

Specifications

Printing method:	Dye transfer sublimation thermal printing
Resolution:	300 dpi
Gradation:	256 gradations for Yellow, Magenta and Cyan
Printing time:	Approx. 45 seconds per side with CMYL ribbon
Interface:	SCSI-2 (UP-D6500 only), IEEE standard 1284
Card supply*2:	Approx. 125 cards with the optional UPA-6003 Auto Card Feeder (UP-D6500: 250 cards when using two of the optional UPA-6003 Auto Card Feeder)
Card stack*2:	Approx. 125 cards with the supplied card tray (UP-D6500: 250 cards when using the optional UPA-6002 Auto Card Stacker)
Power requirements:	220 to 240V, AC 120 V, 50/60 Hz
Power consumption:	AC 220 to 240V : 170 VA, AC 120 V : 130 VA
Dimensions:	350 × 260 × 257 mm (13 7/8 × 10 1/4 × 10 1/8 inches)
Mass:	11.5 kg (25 lb 6 oz)
Safety regulations:	EN 60950

Acceptable PVC Cards Specifications

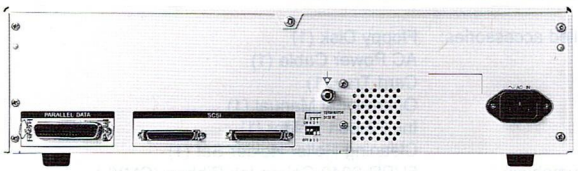
Length:	85.47 to 93.00 mm (3 3/8 × 3 21/32 inches)
Height:	53.92 to 60.00 mm (2 1/8 × 2 11/32 inches)
Thickness*5:	0.3 to 1.5 mm (12 × 59 mils)
Colour:	Any colour card acceptable (except transparency)
Surface Material:	Dye sublimation compatible PVC (unlaminated)
Surface:	Gloss finish (polished)
Other:	No residue, dust or blemishes allowed
Magnetic stripe encoding standards:	ISO / IEC7811-2, -4, -5, -6 Coercivity 300/2750/4000 Öe
Smart card encoding standards:	ISO / IEC7816-1, -2, -3, -4 EMV, Protocol T=1.0

*1 For details, please consult your nearest Sony office.
*2 In case of the card thickness is 0.76 mm.
*3 In case of the card thickness is 0.76 mm and combining optional UPA-6002 Auto Card Stacker with two of UPA-6003 Auto Card Feeder.
*4 Can be operated using the Windows 95 driver software.
*5 The initial setting is 0.76 mm. Some adjustments may be required.

UP-D5500

Digital colour printer

•Dye transfer sublimation thermal printing for photo-quality prints with over 16 million colour reproduction •A high resolution of 300dpi provided by a high resolution thermal head with 2048 elements •A5 size colour prints provided in a mere 40 seconds •SCSI and IEEE-1284 (supporting the ECP mode) interfaces for mutual communication between the printer and the connected equipment •Compact and convenient operating design •Compatibility with Windows® 95/98*/NT and Macintosh® OS •Complies with the MDD



Supplied accessories:	Ink ribbon holder
	Paper tray
	Paper cover
	AC power cable
	Operational manual
	Colour print pack (for 20 prints)
	Printer driver disk for Windows 95 and Macintosh computers
Optional accessories:	Colour printing pack (ink ribbon holder not included) UPC-5510
	Colour printing pack (ink ribbon holder not included) 5UPC-5510
	Colour printing pack UPC-5510C
	Additional ink ribbon holder UPA-5500

Specifications

Printing Performance

Printing Method:	Dye transfer sublimation thermal printing
Thermal Head:	2048 dots (300dpi)
Gradation:	256 level each for Yellow, Magenta and Cyan (16.7 million colors per dot)
Effective Print Pixels:	1,536 × 2,408 dots
Print Area:	132.1 × 176.1mm (5 1/4 × 7 inches)
Printing Time:	Approx. 40 sec.
Picture Memory:	2048 × 2048 × 8 bit per R/G/B
Interface Port:	SCSI
	IEEE-1284

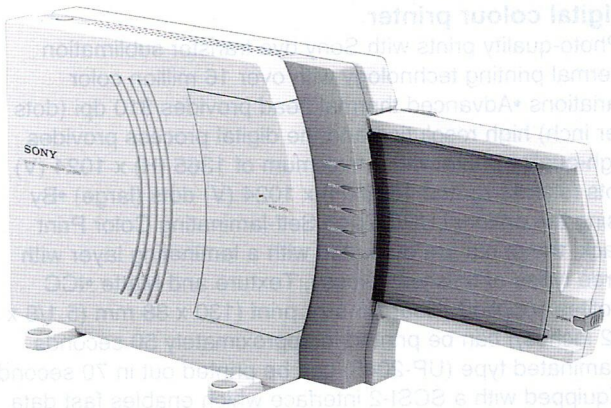
General

Paper Tray Capacity:	100 sheets
Power Requirements:	AC 100 to 240V, 50/60Hz
Power Consumption:	Max. 250W
Dimensions:	424(W) × 125(H) × 475(D)mm (excluding projecting parts) ($16\frac{3}{4} \times 5 \times 18\frac{3}{4}$ inches)
Mass:	17kg (37 lb 11 oz)
Safety Standards	EN60950, EN60601-1, MDD

* Can be operated using the Windows 95 driver software. For operation details, please consult your nearest Sony office.

UP-DP10*

Digital photo printer



•Dye transfer sublimation thermal printing for photo-quality prints with over 16 million color reproduction •Printing time is approx. 85 seconds with the high resolution of approx. 300 dpi •Full-bleed image printing is available with the optional color print pack UPC-10P23E and UPC-10P34 by tearing off the border tabs along the perforations •4 x 6 inch size printouts with UPC-10P23E which can be used as postcards. •4 x 5 3/8 inch size printouts with UPC-10P34 •Three patterned laminations: glossy, matte and texture •Compact and unique design which can be set vertically or horizontally •Equipped with IEEE-1284 (Compatible, Nibble, ECP) and USB (ver.1.0) interface. •Bundled with the driver software which applies Auto Color Adjustment Function for brightness and color balance •Bundled with the application software

Supplied accessories:	CD-ROM (1) Power Code (1) Paper Tray (1) Operation Manual (1)
Optional accessories:	Self-laminating Color Print Pack UPC-10P23E (for 25 prints) Self-laminating Color Print Pack UPC-10P34 (for 25 prints) Self-laminating Sticker Print Pack UPC-10S01 (for 25 prints)

Specifications

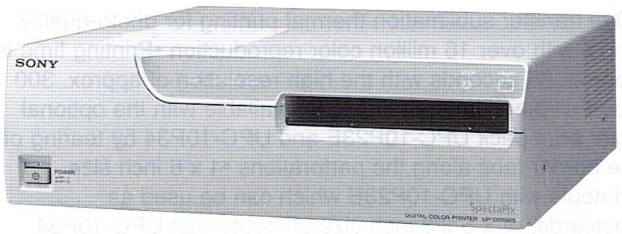
Printing method:	Dye transfer sublimation thermal printing
Resolution:	Approx. 300 dpi
Gradations:	256 gradations for yellow, magenta, cyan Over 16.7 million colors per dot
Picture elements:	1,162 × 1,765 dots (UPC-10P23E) 1,162 × 1,563 dots (UPC-10P34) 1,162 × 1,800 dots (UPC-10S01)
Paper size:	180 × 100 mm (UPC-10P23E, UPC-10P34, UPC-10S01) (7 1/8 × 4 inches)
Print size:	152 × 100 mm (UPC-10P23E, UPC-10S01) (6 × 4 inches) 134 × 100 mm (UPC-10P34) (5 3/8 × 4 inches)
Printing time:	Approx. 85 s / sheet
Interface:	USB (ver 1.0) IEEE-1284 (Compatible, Nibble, ECP)
Paper capacity:	25 sheets
Supplied printer driver software:	Windows 95/98, Mac OS 8.6 or later
Power requirements:	Approx. 0.5 A / 220 to 240 V
Dimensions:	208 (W) × 71 (H) × 303 (D) mm (8¼ × 2⅞ × 12 inches)
Mass:	Approx. 2.7 kg (20 lb 15 oz)

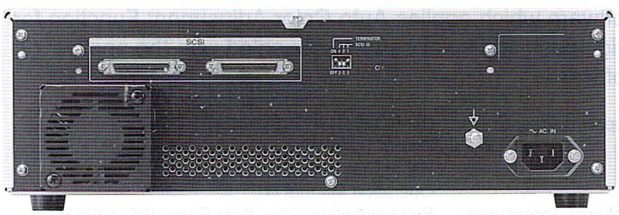
* This product is not available in some areas.

UP-D2600S

Digital colour printer

•Photo-quality prints with Sony dye transfer sublimation thermal printing technology with over 16 million color variations •Advanced thermal head provides 310 dpi (dots per inch) high resolution and the digital process provides high-quality prints with a maximum of 1365 (H) x 1024 (V) dots (standard) and 1646 (H) x 1024 (V) dots (large) •By using the optional UPC-2045 Self-laminating Color Print Pack, the prints are outputted with a laminating layer with three types of finishes: Glossy, Texture and Matte •ICC profiles supplied •Near A6-size print (130 x 88 mm (5 1/8 x 3 1/2 inches)) can be printed in approximately 50 seconds •Laminated type (UP-2045) can be printed out in 70 seconds •Equipped with a SCSI-2 interface which enables fast data transfer at up to 10 MB/s and allows multiple printers to be used •Three color plane memories to free the computer after the image is transferred to the printer •Compatible with Windows NT 4.0, Windows 95/98 and Macintosh OS •Picture scaling function •200 (standard) /150 (large)-sheet paper feed capacity •Front panel operation •Complies with the MDD





Supplied accessories:	AC Power Cable (1) Paper Tray (2) (Standard and Large) Paper Cover (1) Roller Cleaning Kit (1) Operation Manual (1) CD-ROM with printer driver included (1) (for Windows 95/98, Windows NT 4.0, Mac OS 8.0 or later and Photoshop plug-in for both Windows and Macintosh platforms)
Optional accessories	Color Printing Pack UPC-2010 (for 200 prints) Black and White Printing Pack UPC-2020 (for 200 prints) Self-laminating Color Printing Pack UPC-2045 (for 120 prints) Self-laminating Color Printing Pack UPC-2040A (for 120 prints) Color Postcard Printing Pack UPC-2070E (for 150 prints) 16-split Self-adhesive Pre-cut Color Printing Pack UPC-20S16 (for 200 prints) 4-split Self-adhesive Pre-cut Color Printing Pack UPC-20S04 (for 200 prints) Self-adhesive Color Printing Pack UPC-20S01 (for 200 prints) Paper Ejector UPA-2001 Roller Cleaning Kit UPA-2003

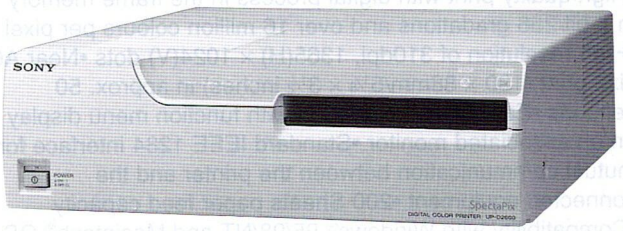
Specifications

Printing method:	Dye transfer sublimation thermal printing
Resolution:	310 dpi or 155 dpi selectable
Gradation:	256 gradations for Yellow, Magenta, Cyan Over 16.7 million colors per dot
Printing paper size:	UPC-2010/2020/20S01/20S04/20S16: 130 × 88 mm (5 1/8 × 3 1/2 inches) UPC-2045/2040A/2070/2070E: 148 × 100 mm (5 7/8 × 4 inches)
Printed picture size:	Standard: max. 112 × 84 mm (4 1/2 × 3 3/8 inches) Large: max. 135 × 84 mm (5 3/8 × 3 3/8 inches)
Picture elements:	Standard: 1365 × 1024 dots Large: 1646 × 1024 dots
Picture memory:	3 color planes (6 MB)
Printing time:	Approx. 50 seconds (When using the UPC-2045: Approx. 70 seconds, UPC-2040A: Approx. 97 seconds)
Interface port:	SCSI-2
Paper tray capacity:	Standard size paper tray: 200 sheets (UPC-2010/2020/20S01/20S04/20S16) Large size paper tray: 120 or 150 sheets (UPC-2045/2040A/2070/2070E)
Picture scaling function:	VGA mode (640 × 480 dots), SVGA mode (800 × 600 dots), XGA mode (1,024 × 768 dots)
Power requirements:	220 to 240 V, 50/60 Hz
Power consumption:	Approx. 1.0 A / 220 V
Dimensions:	370 (W) × 125 (H) × 417 (D) mm (14 5/8 × 5 × 16 3/4 inches)
Mass:	Approx. 9.5 kg (20 lb 15 oz)
Safety regulations:	EN60950, EN60601-1, MDD, CE mark

UP-D2600

Digital colour printer

•Photo-quality prints with Sony dye transfer sublimation thermal printing technology with over 16 million color variations •Advanced thermal head provides 310 dpi (dots per inch) high resolution and the digital process provides high-quality prints with a maximum of 1365 (H) x 1024 (V) dots (standard) and 1646 (H) x 1024 (V) dots (large) •By using the optional UPC-2045 Self-laminating Color Print Pack, the prints are outputted with a laminating layer with three types of finishes: Glossy, Texture and Matte •ICC profiles supplied •Near A6-size print (130 x 88 mm (5 1/8 x 3 1/2 inches)) can be printed in approximately 50 seconds •Laminated type (UP-2045) can be printed out in 70 seconds •Equipped with a Parallel (IEEE-1284) interface •Supports the bi-Centronics ECP mode •Three color plane memories to free the computer after the image is transferred to the printer •Compatible with Windows NT 4.0, Windows 95/98 •Picture scaling function •200 (standard) /150 (large)-sheet paper feed capacity •Front panel operation •Complies with the MDD



Supplied accessories:	AC Power Cable (1) Paper Tray (2) (Standard and Large) Paper Cover (1) Roller Cleaning Kit (1) Operation Manual (1) CD-ROM with printer driver included (1) (for Windows 95/98, Windows NT 4.0 and Photoshop plug-in for Windows 95/98)
Optional accessories	Color Printing Pack UPC-2010 (for 200 prints) Black and White Printing Pack UPC-2020 (for 200 prints) Self-laminating Color Printing Pack UPC-2045 (for 120 prints) Self-laminating Color Printing Pack UPC-2040A (for 120 prints) Color Postcard Printing Pack UPC-2070E (for 150 prints) 16-split Self-adhesive Pre-cut Color Printing Pack UPC-20S16 (for 200 prints) 4-split Self-adhesive Pre-cut Color Printing Pack UPC-20S04 (for 200 prints) Self-adhesive Color Printing Pack UPC-20S01 (for 200 prints) Paper Ejector UPA-2001 Roller Cleaning Kit UPA-2003

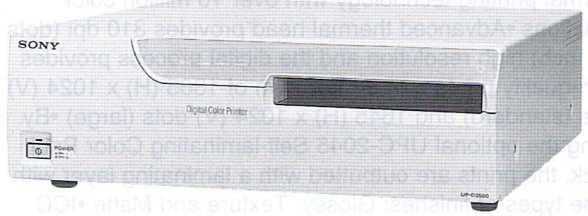
Specifications

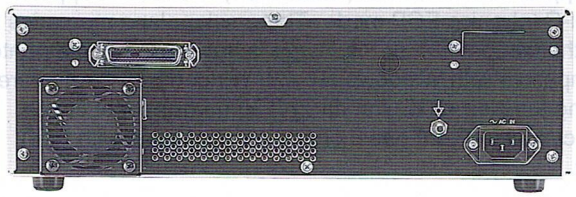
Printing method:	Dye transfer sublimation thermal printing
Resolution:	310 dpi or 155 dpi selectable
Gradation:	256 gradations for Yellow, Magenta, Cyan Over 16.7 million colors per dot
Printing paper size:	UPC-2010/2020/20S01/20S04/20S16: 130 × 88 mm (5 1/8 × 3 1/2 inches) UPC-2045/2040A/2070/2070E: 148 × 100 mm (5 7/8 × 4 inches)
Printed picture size:	Standard: max. 112 × 84 mm (4 1/2 × 3 3/8 inches) Large: max. 135 × 84 mm (5 3/8 × 3 3/8 inches)
Picture elements:	Standard: 1365 × 1024 dots Large: 1646 × 1024 dots
Picture memory:	3 color planes (6 MB)
Printing time:	Approx. 50 seconds (When using the UPC-2045: Approx. 70 seconds, UPC-2040A: Approx. 97 seconds)
Interface port:	IEEE standard 1284-1994 (Compatible, Compatible Nibble and ECP modes)
Paper tray capacity:	Standard size paper tray: 200 sheets (UPC-2010/2020/20S01/20S04/20S16) Large size paper tray: 120 or 150 sheets (UPC-2045/2040A/2070/2070E)
Picture scaling function:	VGA mode (640 × 480 dots), SVGA mode (800 × 600 dots), XGA mode (1,024 × 768 dots)
Power requirements:	220 to 240 V, 50/60 Hz
Power consumption:	Approx. 1.0 A / 220 V
Dimensions:	370 (W) × 125 (H) × 417 (D) mm (14 5/8 × 5 × 16 3/4 inches)
Mass:	Approx. 9.5 kg (20 lb 15 oz)
Safety regulations:	EN60950, EN60601-1, MDD, CE mark

UP-D2500

Digital colour printer

•High quality print with digital process in the frame memory in 8-bit/256 gradations and over 16 million colours per pixel •High resolution of 310dpi, 1365(H) × 1024(V) dots •Near A6 size print (130 × 88mm/5⅛ × 3½ inches) in approx. 50 seconds •Easy-to-use operation with function menu display on an associated monitor •Standard IEEE 1284 interface for mutual communication between the printer and the connected equipment •200 Sheets paper feed capacity •Compatibility with Windows® 95/98/NT and Macintosh® OS •Complies with the MDD





Supplied accessories:	Colour printing pack (for 10 prints) Paper tray (1) Paper cover (1) AC power cable Operation manual Printer driver for Windows 95/98 OS and Macintosh OS
Optional accessories:	Colour printing pack UPC-2010 (for 200 prints) Black and white printing pack UPC-2020 (for 200 prints) Self-laminating colour printing pack UPC-2040A (for 120 prints) Colour postcard printing pack UPC-2070E (for 150 prints) Self-adhesive colour printing pack UPC-20S01 (for 200 prints) 16-split Self-adhesive pre-cut colour printing pack UPC-20S16 (for 200 prints) 4-split Self-adhesive pre-cut colour printing pack UPC-20S04 (for 200 prints) Self-adhesive Color Printing Pack UPC-20S01 (for 200 prints) Paper ejector UPA-2001 Paper tray (for UPC-2040A and UPC-2070E) UPA-2002 Interface cable (for Macintosh) UPZ-2000M Roller cleaning kit UPA-2003

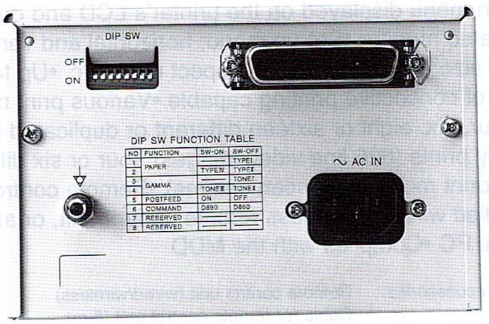
Specifications

Printing method:	Dye transfer sublimation thermal printing
Resolution:	310dpi or 155dpi selectable
Gradation:	256 gradations for Yellow, Magenta, Cyan Over 16.7 million colours per dot
Printing paper size:	130 × 88 mm (5⅛ × 3½ inches) (Self-laminating paper/Postcard: 148 × 100 mm)
Printed picture size:	Max. 112 × 84 mm (4½ × 3⅜ inches)
Picture elements:	1365 × 1024 dots
Picture memory:	Color plane (2MB)
Printing time:	Approx. 50 seconds (When using the UPC-2040A: Approx. 97 seconds)
Interface port:	Parallel (IEEE standard 1284-1994) (Compatible, Compatible Nibble and ECP modes)
Paper tray capacity:	200 sheets
Power requirements:	220 to 240V, 50/60Hz
Power consumption:	Approx. 1.0A
Dimensions:	370(W) × 125(H) × 417(D) mm (14⅝ × 5 × 16½ inches)
Mass:	9.5 kg (23 lb 2 oz)
Safety regulations:	EN60950, EN60601-1 (TÜV), MDD

UP-D890

Digital graphic printer

•Monochrome digital graphic printer with 1024 picture element (horizontally) and 256 steps of gradation •A fast printing speed: approx 5.5 seconds •Compact (154 × 106 × 303mm/6 1/8 × 4 1/4 × 12 inches) and lightweight (3.6kg/7 lb 16 oz) •Conforms to the bi-Centronics standard for direct connection to equipment such as a computer and electronic microscope and mutual communication between the printer and connected equipment •Panoramic-size printing capable with an additional 4MB memory •Printing paper selectable from UPP-110HA superior density type UPP-110HD high density type or the UPP-110S normal type thermal paper •Three gradations selectable; Soft, Standard and Hard (when using the UPP-110HA or UPP-110HD high density thermal paper) •Complies with the MDD



Supplied accessories:
- AC power cable
- Paper roll UPP-110HA
- Head cleaning sheet
- Printer Driver for Windows 3.1/95
- Operation manual

Optional accessories:
- Printing paper UPP-110S
- High density printing paper UPP-110HD
- Superior Density Printer Paper UP-110HA

Specifications

Thermal head:	Thin film thermal head 1024 dots drive
Gradation:	256 grey levels
Printed picture size:	100 × 100 mm ±1.5% (1024 × 1024 dots)
Printing speed:	Approx. 5.5 s/print
Picture elements:	1024(H) × 1024(V) dots
Interface connector:	bi-Centronics standard (IEEE STD P1284 Reverse-Nibble and ECP) 36-pin Amphenol type
Power requirements:	AC 220 to 240V/120V, 50/60Hz
Power consumption:	Max. 120 W
Dimensions:	154(W) × 106(H) × 303(D) mm (6 1/8 × 4 1/4 × 12 inches)
Mass:	3.6 kg (8 lb)
Safety regulations:	EN60950, EN60601-1, MDD

UP-7300MDP

Colour video printer

•High quality full colour print with digital process in the frame memory in 8-bit/256 gradations, and over 16 million colours per pixel •Its thermal head, with 1280 picture element dots, reproduces a high quality output with a resolution of 6.4 dots/mm •A4 size print (210 × 297mm/ $8^3/_8 \times 11^3/_4$ inches) in approx. 125 seconds and a black and white image in approx. 60 seconds •OHP transparency prints for effective presentations •Multiscan capability; inputs over a wide range of horizontal scanning frequencies- 15kHz to 89kHz- is acceptable •Multiple inputs; four BNC connectors for 625 analogue RGB signal input, DIN 4-pin for Y/C input and a BNC connector for PAL composite signal input, and DN 50-pin multiple connector for analogue RGB high scan signal for connection with variety of computers and HDVS with optional cables •Menu operation with the function menu displayed on the printer's LCD and on an associated monitor •Set-up menu; horizontal and vertical picture size, H/V picture shift, aspect ratio, etc. •Up to 20 copies of consective printing capable •Various print modes; two, four, six, eight or sixteen different or duplicated image memory prints (625 line video images), four or six different image print mode (high scan images) •Remote control from a supplied wired or wireless remote control unit, or an extemal PC •Complies with the MDD

Supplied accessories:	Remote control unit (wired/wireless) Cable for remote control unit (5 m) Ink ribbon holders for colour, B&W and OHP materials Paper tray Paper cover Battery SUM-3 (2) AC power cable Operation and instruction manual
Optional Accessories	Colour print pack UPC-7010P (for 100 prints) Black and white print pack UPC-7020 (for 100 prints) OHP print pack UPC-7030 (for 100 prints) RS-232C cross cable SMF-1015 Video interface cable for Macintosh UPZ-7000M Video interface cable for IBM PS55, PS/2, PS/V UPZ-7000I Interface cable for workstation UPZ-7001, UPZ-7002, UPZ-7003

Specifications

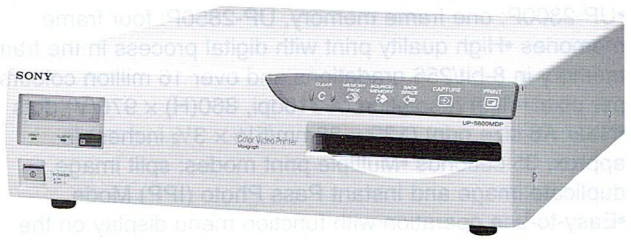
Printing method:	Dye transfer sublimation thermal printing
Thermal head:	1280 elements (6.4 dots/mm)
Printing paper size:	A4 (210 × 297 mm$8^3/_8 \times 11^3/_4$ inches) using the optional UPC-7010P
Picture size:	<625/50 line signal> Max. 184 × 241mm ($7^1/_4 \times 9\ ^1/_2$ inches) <Hi-scan signal> Max. 190 × 246mm ($7^1/_2 \times 9^3/_4$ inches)
Gradations:	256 levels process (Yellow, Magenta, Cyan) over 16 million colours per pixel
Scanning frequency:	15kHz to 89kHz
Picture memory:	Six frame memories (9MB)
Printing time:	Approx. 125 seconds - Colour, Macintosh II print Approx. 60 seconds - B & W print
Input:	RGB analogue for Hi-Scan or HDVS signal*(DN 50-pin) RGB: 0.7Vp-p, 75Ω Sync: 1.0 to 5.0Vp-p, 75Ω RGB analogue (625 line system) signal* (BNC ×4) RGB: 0.7Vp-p, 75Ω, unbalanced Sync: 0.3 to 4.0Vp-p, negative, 75Ω, unbalanced S-Video (Y/C separate, DIN 4-pin S terminal) Y: 0.5 to 2.0Vp-p, sync negative, 75Ω, unbalanced C: 0.3Vp-p, 75Ω, unbalanced Composite video (BNC) CCIR/PAL 0.5 to 2.0Vp-p, sync negative, 75Ω, unbalanced
Output:	RGB analogue for Hi-Scan or HDVS signal (DN 50-pin)* RGB: 0.7Vp-p, 75Ω Sync: Through output RGB analogue signal (625 line scan) (BNC ×4) RGB: 0.7Vp-p, 75Ω, unbalanced Sync: 1.0Vp-p, negative, 75Ω, unbalanced S-Video (Y/C separate, DIN 4-pin S terminal) Y: 1.0Vp-p, sync negative, 75Ω, unbalanced C: 0.3Vp-p, 75Ω, unbalanced Composite video (BNC) CCIR/PAL 1.0Vp-p, sync negative, 75Ω, unbalanced
Control terminal:	RS-232C (D-sub 25-pin) REMOTE 1: Remote control jack (special mini) REMOTE 2: Foot switch jack (stereo mini)
Power requirement:	AC 200 to 240V, 50/60Hz
Power consumption:	290W
Dimensions:	424(W) × 177(H) × 490(D)mm ($16^3/_4 \times 7 \times 19^3/_8$ inches)
Mass:	Approx. 19.2kg (42 lb)
Safety regulations:	EN60950, EN6060-1, BZT, MDD

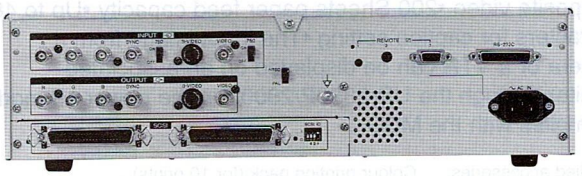
* Note: The UP-7300MDP can accept sync-on-G or external sync automatically.

UP-5600MDP

Colour video printer

•High quality print with digital process in the frame memory in 8-bit/256 gradations and over 16 million colours per pixel •A thermal head with 2048 elements assures high quality output with a resolution of 300 dots per inch •Four frame memories (Eight frame memory is possible with optional UPK-5500 frame memory board) •A5 size print (210 × 148mm/8⅜ × 5⅞ inches) in approx. 34 seconds •Easy-to-use menu operation with function menu display on the printer's LCD and on an associated monitor •Worldwide use (accepts CCIR/PAL video, EIA/NTSC video, 625 analogue RGB, 525 analogue RGB) •Multiple video inputs; analogue RGB, Y/C and composite video •Remote control operation from optional wired/wireless remote control units RM-5500/91 and foot switch FS-30 •RS-232C port for external remote control from a PC •Full colour digital printing is possible using the optional four frame memory board UPK-5500 and SCSI interface board UPK- 5502SC which includes A/D and D/A conversion function and printer driver software •Multiple printing modes; 2,4,8 or 16 split print, 2,4,8 or 16 duplicate image print, composite print •Up to 80 characters of caption setting •The input image from a camera or a VTR can be displayed on an assosiated monitor looping through the UP-5600MDP in the power off mode •User-friendly operational design •Complies with the MDD





UP-5600MDP with UPK-5502SC

Supplied accessories:	AC power cable Colour print pack (for 20 prints) Paper tray Paper cover Ink ribbon holder Operation manual
Optional accessories:	Four frame memory board UPK-5500 Digital interface board UPK-5502SC Wired/Wireless remote commander RM-5500 Remote control unit RM-91 Foot switch FS-30 Colour printing pack UPC-5510/5UPC-5510* Colour printing pack UPC-5510C Cassette for UPC-5510/5UPC-5510 UPA-5500

*The UPC-5510/5UPC-5510 is not supplied with a cassette.

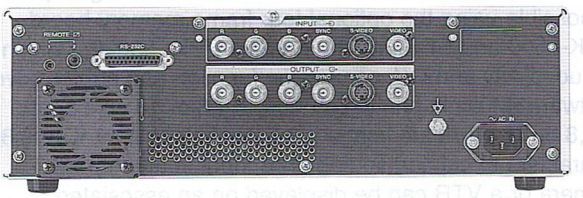
Specifications

Printing method:	Dye transfer sublimation thermal printing
Thermal head:	6.72 dots/mm (300dpi dots)
Printing paper size:	148 × 210mm (5⅞ × 8⅜ inches)
Picture size:	124.8 × 165.1mm (5 × 6½ inches) - PAL Full Print Mode 125.8 × 165.1mm (5 × 6½ inches) - NTSC Full Print Mode 132.1 × 176.1mm (5¼ × 7 inches) - Digital Printing (with optional UPK-5502SC)
Picture elements:	1176 lines × 1920 dots - PAL Full Print Mode 976 lines × 1920 dots - NTSC Full Print Mode 1536 lines × 2048 dots - Digital Printing (with optional UPK-5502SC and UPK-5500)
Gradations:	256 levels process (Yellow, Magenta, Cyan) Over 16 million colours per pixel
Picture memory:	4 frame memories, 2048 × 1024 × 8 bits × 3 (6MB) 8 frame memories with optional UPK-5500, 2048 × 2048 × 8 bits × 3 (12MB)
Printing time:	Approx. 34s - PAL Full Size Print Mode Approx. 30s - NTSC Full Size Print Mode Approx. 38s - Digital printing with optional UPK-5502SC
Input:	625 or 525 RGB analogue* (BNC × 4, R/G/B/Sync) RGB: 0.7Vp-p, 75Ω, unbalanced Sync: 0.3 to 4.0Vp-p, sync negative, 75Ω, unbalanced S-Video (Y/C Separate, 4-pin S terminal) CCIR/PAL Y: 1.0Vp-p, sync negative, 75Ω, unbalanced C: 0.3Vp-p, 75Ω, unbalanced EIA/NTSC Y: 1.0Vp-p, sync negative, 75Ω, unbalanced C: 0.286Vp-p, 75Ω, unbalanced Composite video (BNC) CCIR/PAL or EIA/NTSC 1.0Vp-p, sync negative, 75Ω, unbalanced**
Output:	625 or 525 RGB analogue* (BNC × 4, R/G/B/Sync) RGB: 0.7Vp-p, 75Ω, unbalanced Sync: 1.0Vp-p, sync negative, 75Ω, unbalanced S-Video (Y/C Separate, 4-pin S terminal) CCIR/PAL Y: 1.0Vp-p, sync negative, 75Ω, unbalanced C: 0.3Vp-p, 75Ω, unbalanced EIA/NTSC Y: 1.0Vp-p, sync negative, 75Ω, unbalanced C: 0.286Vp-p, 75Ω, unbalanced Composite video (BNC) CCIR/PAL or EIA/NTSC 1.0Vp-p, sync negative, 75Ω, unbalanced**
Interface:	(with optional UPK-5502SC) SCSI 1 channel 50-pin amphenol (×2)
Control terminal:	Remote control jack (Special mini) for optional RM-5500 Foot switch-1 (stereo mini) Foot switch-2 (D-sub 9-pin) for optional FS-30 RS-232C interface port (D-sub 25-pin)
Power requirement:	AC220V to 240V, 50/60Hz
Power consumption:	Max. 1.2A
Dimensions:	424(W) × 125(H) × 475(D)mm (16¾ × 5 × 18¾ inches)
Mass:	14kg (30 lb 14oz)
Safety regulations:	EN60601-1 (TÜV), MDD
EMI regulations:	EMC Directive
Note:	*The UP-5600MDP can accept sync-on-G or external sync automatically. ** CCIR/PAL or EIA/NTSC signals are selected using the input selector on the unit's rear panel.

UP-2850P/2800P

Colour video printer

•UP-2800P: one frame memory, UP-2850P: four frame memories •High quality print with digital process in the frame memory in 8-bit/256 gradations and over 16 million colours per pixel •High resolution of 310dpi, 860(H) × 976(V) dots •Near A6 size print (130 × 88mm/5⅛ × 3½ inches) in approx. 35 seconds •Multiple print modes: split image, duplicate image and Instant Pass Photo (IPP) Mode •Easy-to-use operation with function menu display on the built-in LCD or the associated monitor •Remote control function by an optional foot switch FS-36, remote control unit RM-91 or an external computer via an RS-232C interface •Multiple video input: analogue RGB, Y/C and composite video •200 Sheets paper feed capacity •Up to 48 characters for caption setting •The input image from a camera or a VTR can be displayed on an associated monitor through the UP-2850P/2800P in the power off mode •Complies with the MDD



Supplied accessories:	Colour printing pack (for 10 prints) Paper tray (1) Paper cover (1) AC power cable Operation manual
Optional accessories:	Wired/wireless remote control Unit RM-5500 Remote control unit RM-91 Foot switch FS-36 Colour printing pack UPC-2010 (for 200 prints) Black and white printing pack UPC-2020 (for 200 prints) Colour postcard printing pack UPC-2070E (for 150 prints) Self-adhesive colour printing pack UPC-20S01 (for 200 prints) 16-split self-adhesive pre-cut colour printing pack UPC-20S16 (for 200 prints) 4-split Self-adhesive pre-cut colour printing Pack UPC-20S04 (for 200 prints) Paper ejector UPA-2001 Paper tray (for UPC-2040A and UPC-2070E) UPA-2002

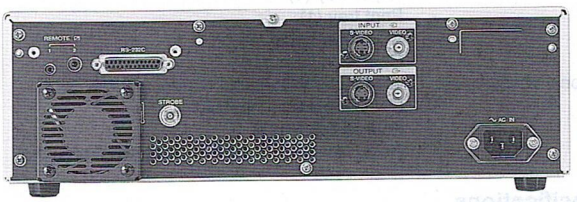
Specifications

Printing method:	Dye transfer sublimation thermal printing
Thermal head:	1024 elements (12.2 dots/mm)
Gradation:	256 gradations for yellow, Magenta, Cyan Over 16.7 million colours per dot
Printing paper size:	130 × 88 mm (5 1/8 × 3 1/2 inches)
Printed picture size:	Max. 110 × 80 mm (4 3/8 × 3 1/4 inches) (Self-laminating paper: Max. 135 × 70 mm (5 3/8 × 2 7/8 inches))
Picture elements:	860 × 976 dots
Picture memory:	UP-2850P: Four frame memories UP-2800P: One frame memory
Printing time:	Approx. 35 seconds
Inputs:	Y/C separate (4-pin S terminal) Y: 1.0Vp-p, sync negative, 75Ω, unbalanced C: 0.3Vp-p, 75Ω, unbalanced Composite video (BNC), CCIR/PAL 1.0Vp-p sync negative, 75Ω, unbalanced Analogue RGB (BNC × 4) RGB: 0.7Vp-p, 75Ω, unbalanced Sync: 0.2 to 4.0Vp-p, negative, 75Ω, unbalanced
Outputs:	Y/C separate (4-pin S terminal) Y: 1.0Vp-p, sync negative, 75Ω, unbalanced C: 0.3Vp-p, 75Ω, unbalanced Composite video (BNC), CCIR/PAL 1.0Vp-p sync negative, 75Ω, unbalanced Analogue RGB (BNC × 4) RGB: 0.7Vp-p, 75Ω, unbalanced Sync: 1.0Vp-p, negative, 75Ω unbalanced
Control terminals:	RS-232C (D-sub 25-pin) Remote 1 (Special mini) for optional remote control unit RM-5500 Remote 2 (Stereo mini) for optional remote control unit RM-91 or foot switch FS-36
Power requirements:	220 to 240V, 50/60Hz
Power consumption:	Max. 1.0A
Dimensions:	370(W) × 125(H) × 417(D) mm (14 5/8 × 5 × 16 1/2 inches)
Mass:	10.5 kg (23 lb 2 oz)
Safety regulations:	EN60950, EN60601-1 (TÜV), MDD

UP-2330P/2300P

Colour video printer

•High quality print with digital process in the frame memory in 8-bit/256 gradations and over 16 million colours per pixel •High resolution of 310dpi, 860(H) × 976(V) dots•Near A6 size print (130 × 88mm/5 1/8 × 3 1/2 inches) in approx. 35 seconds •Multiple print modes: split image, duplicate image and Instant Pass Photo (IPP) Mode •Easy-to-use operation with function menu display on an associated monitor •Remote control function by an optional foot switch FS-36, remote control unit RM-91 or an external computer via an RS-232C interface •Y/C and composite video input available •200 Sheets paper feed capacity •Up to 48 characters for caption setting •The input image from a camera or a VTR can be displayed on an associated monitor through the UP-2330P/2300P in the power off mode •Complies with the MDD (UP-2300P only)



Supplied accessories:	Colour printing pack (for 10 prints) Paper tray (1) Paper cover (1) AC power cable Operation manual
Optional accessories:	Wired/wireless remote control Unit RM-5500 Remote control unit RM-91 Foot switch FS-36 Colour printing pack UPC-2010 (for 200 prints) (UP-2300P only) Black and white printing pack UPC-2020 (for 200 prints) (UP-2300P only) Self-laminating colour printing pack UPC-2040A (for 120 prints) (UP-2330P only) Colour postcard printing pack UPC-2070E (for 150 prints) Self-adhesive colour printing pack UPC-20S01 (for 200 prints) 16-split self-adhesive pre-cut colour printing pack UPC-20S16 (for 200 prints) 4-split Self-adhesive pre-cut colour printing Pack UPC-20S04 (for 200 prints) Paper ejector UPA-2001 Paper tray (for UPC-2040A and UPC-2070E) UPA-2002

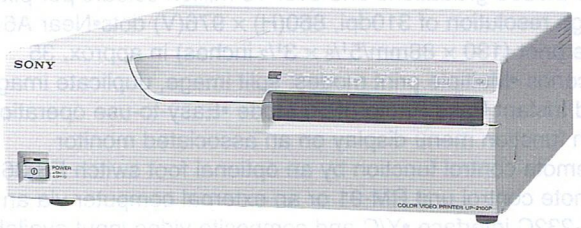
Specifications

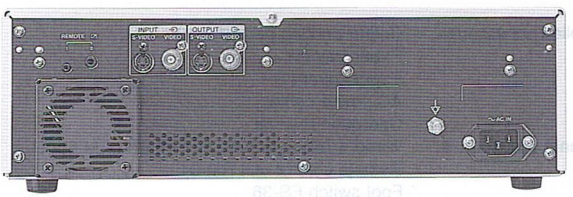
Printing method:	Dye transfer sublimation thermal printing
Thermal head:	1024 elements (12.2 dots/mm)
Gradation:	256 gradations for yellow, Magenta, Cyan Over 16.7 million colours per dot
Printing paper size:	130 × 88 mm (5 1/8 × 3 1/2 inches)
Printed picture size:	Max. 110 × 80 mm (4 3/8 × 3 1/4 inches) (Self-laminating paper: Max. 135 × 70 mm (5 3/8 × 2 7/8 inches))
Picture elements:	860 × 976 dots
Picture memory:	One frame memory
Printing time:	Approx. 35 seconds (70 seconds when using UPC-2040A)
Inputs:	Y/C separate (4-pin S terminal) Y: 1.0Vp-p, sync negative, 75Ω, unbalanced C: 0.3Vp-p, 75Ω, unbalanced Composite video (BNC), CCIR/PAL 1.0Vp-p sync negative, 75Ω, unbalanced
Outputs:	Y/C separate (4-pin S terminal) Y: 1.0Vp-p, sync negative, 75Ω, unbalanced C: 0.3Vp-p, 75Ω, unbalanced Composite video (BNC), CCIR/PAL 1.0Vp-p sync negative, 75Ω, unbalanced
Control terminals:	RS-232C (D-sub 25-pin) Remote 1 (Special mini) for optional remote control unit RM-5500 Remote 2 (Stereo mini) for optional remote control unit RM-91 or foot switch FS-36
Power requirements:	220 to 240V, 50/60Hz
Power consumption:	Max. 1.0A
Dimensions:	370(W) × 125(H) × 417(D) mm (14 5/8 × 5 × 16 1/2 inches)
Mass:	10 kg (22 lb 1 oz)
Safety regulations:	EN60950, EN60601-1 (TÜV), MDD (UP-2300P only)

UP-2100P

Colour video printer

•High quality print with digital process in the frame memory in 8-bit/256 gradations and over 16 million colours per pixel •High resolution of 182dpi, 720(H) × 564(V) dots •Near A6 size print (130 × 88mm/5 1/8 × 3 1/2 inches) in approx. 35 seconds •Easy-to-use operation with function menu display on an associated monitor •Remote control function by an optional foot switch FS-36, remote control unit RM-91 or an external computer via an RS-232C interface •Y/C and composite video input available •200 Sheets paper feed capacity •Up to 48 characters for caption setting •The input image from a camera or a VTR can be displayed on an associated monitor through the UP-2100P in the power off mode •Complies with the MDD





Supplied accessories:	Colour printing pack (For 10 Prints) Paper tray (1) Print tray (1) AC power cable Operation manual
Optional accessories:	Wired/wireless remote control unit RM-5500 Remote control unit RM-91 Foot switch FS-36 Colour printing pack UPC-2010 (for 200 prints)

Specifications

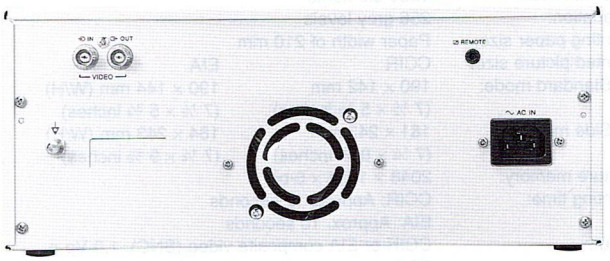
Printing method:	Dye transfer sublimation thermal printing
Thermal head:	608 elements (7.2 dots/mm)
Gradation:	256 gradations for yellow, Magenta, Cyan Over 16.7 million colours per dot
Printing paper size:	130 × 88 mm (5 1/8 × 3 1/2 inches)
Printed picture size:	Max. 110 × 80 mm (4 3/8 × 3 1/4 inches)
Picture elements:	720 × 564dots
Picture memory:	One frame memory
Printing time:	Approx. 60 seconds
Inputs:	Y/C separate (4-pin S terminal) Y: 1.0Vp-p, sync negative, 75Ω, unbalanced C: 0.3Vp-p, 75Ω, unbalanced Composite video (BNC), CCIR/PAL 1.0Vp-p sync negative, 75Ω, unbalanced
Outputs:	Y/C separate (4-pin S terminal) Y: 1.0Vp-p, sync negative, 75Ω unbalanced C: 0.3Vp-p, 75Ω, unbalanced Composite video (BNC), CCIR/PAL 1.0Vp-p sync negative, 75Ω, unbalanced
Control terminals:	Remote 1 (Special mini) for optional remote control unit RM-5500 Remote 2 (Stereo mini) for optional remote control unit RM-91 or foot switch FS-36
Power requirements:	220 to 240V, 50/60Hz
Power consumption:	Max. 1.0A
Dimensions:	370(W) × 125(H) × 417(D) mm (14 5/8 × 5 × 16 1/2 inches)
Mass:	9 kg (19 lb 13 oz)
Safety regulations:	EN60950, EN60601-1 (TÜV), MDD

UP-980CE (CCIR/EIA)

Monochrome video graphic printer

•Thermal video graphic printer with 256 steps of grey level •Large print size (CCIR standard: 186x 249 mm at side direction print mode, 187x 138 mm at normal direction print mode) •High speed printing of 12 seconds•Multiple print modes; Standard, Side and 2, 4, 6 split (different images) print •Accepts both 15.75 kHz and 31.5 kHz composite video signals •Blue transparency prints with optional UPT-210BL •Auto paper cut function •Complies with the MDD

Supplied accessories:	Paper Roll (UPP-210HD) (1) Head Cleaning Sheet (1) AC Power Cable (1) BNC Cable (1) Operation Manual (1)
Optional accessories:	RM-91 Remote Control Unit UPP-210HD High Density Printing Paper UPP-210SE High Quality Printing Paper UPT-210BL Blue Transparent Film



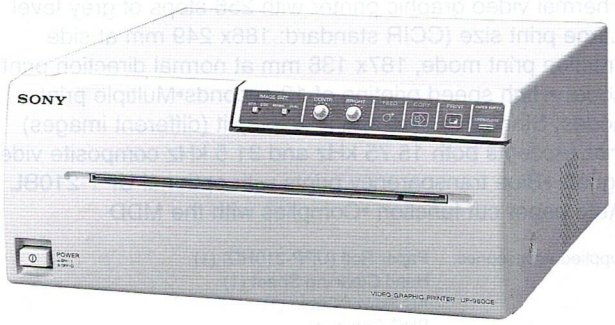
Specifications

Printing method:	Direct thermal printing	
Thermal head:	1280 elements	
Gradation:	256 grey levels	
Printing paper size:	Paper width of 210 mm	
Printed picture size:	CCIR	EIA
Standard mode:	187 × 138 mm (7 3/8 × 5 1/2 inches)	187 × 140 mm (W/H) (7 3/8 × 5 5/8 inches)
Side mode:	186 × 249 mm (7 3/8 × 9 7/8 inches)	188 × 249 mm (W/H) (7 1/2 × 9 7/8 inches)
Picture memory:	2048 × 2048 × 8-bit	
Printing time:	CCIR: Approx. 12 seconds EIA: Approx. 10 seconds	
Inputs:	CCIR or EIA composite video (BNC), 1.0 Vp-p 75 Ω /high impedance	
Outputs:	CCIR or EIA composite video (BNC), 1.0 Vp-p 75 Ω /high impedance	
Control terminals:	Remote (Stereo mini) for optional RM-91 Remote Control Unit	
Power requirements:	220 to 240 V, 120 V, 50/60 Hz	
Power consumption:	220 to 240 V: 1.3 A 120 V: 2.4 A	
Dimensions:	316 (W) × 132 (H) × 305 (D) mm (12 1/2 × 5 1/4 × 12 1/8 inches)	
Mass:	8 kg (17 lb 10 oz)	
Safety regulations:	EN60950, EN60601-1, CE (MDD, EMC. LVD)	

UP-960CE (CCIR/EIA)

Monochrome video graphic printer

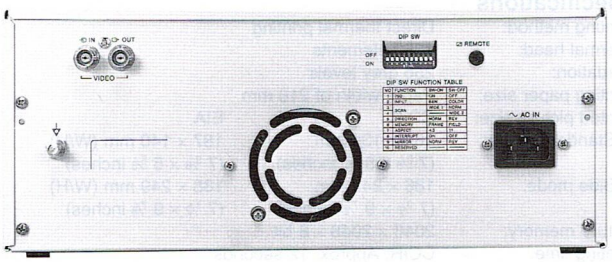
•Thermal video graphic printer with 256 steps of grey level •Large print size (CCIR standard: 181 × 243 mm at side direction print mode, 190x 142 mm at normal direction print mode) •High speed printing of 12 seconds•Multiple print modes; Standard, Side and 2 split (different images) print •Accepts worldwide video signals for both CCIR and EIA •Complies with the MDD



Supplied accessories:	Paper Roll (UPP-210HD) (1) Head Cleaning Sheet (1) AC Power Cable (1) BNC Cable (1) Operation Manual (1)
Optional accessories:	RM-91 Remote Control Unit UPP-210HD High Density Printing Paper UPP-210SE High Quality Printing Paper

Specifications

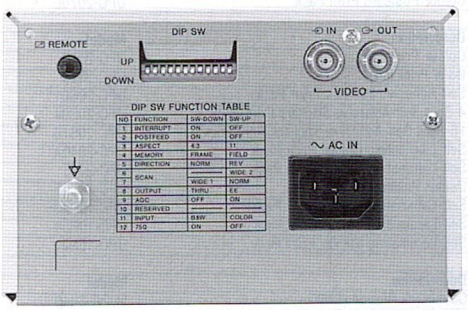
Printing method:	Direct thermal printing	
Thermal head:	1280 elements	
Gradation:	256 grey levels	
Printing paper size:	Paper width of 210 mm	
Printed picture size:	CCIR	EIA
Standard mode:	190 × 142 mm (7 ½ × 5 ⅝ inches)	190 × 144 mm (W/H) (7 ½ × 5 ¾ inches)
Side mode:	181 × 243 mm (7 ¼ × 9 ⅝ inches)	184 × 243 mm (W/H) (7 ¼ × 9 ⅝ inches)
Picture memory:	2048 × 1024 × 8-bit	
Printing time:	CCIR: Approx. 12 seconds EIA: Approx. 10 seconds	
Inputs:	CCIR or EIA composite video (BNC), 1.0 Vp-p 75 Ω /high impedance	
Outputs:	CCIR or EIA composite video (BNC), 1.0 Vp-p 75 Ω /high impedance	
Control terminals:	Remote (Stereo mini) for optional RM-91 Remote Control Unit	
Power requirements:	220 to 240 V, 120 V, 50/60 Hz	
Power consumption:	220 to 240 V: 1.3 A 120 V: 2.4 A	
Dimensions:	316 (W) × 132 (H) × 305 (D) mm (12 ½ × 5 ¼ × 12 ⅛ inches)	
Mass:	8 kg (17 lb 10 oz)	
Safety regulations:	EN60950, EN60601-1, CE (MDD, EMC. LVD)	



UP-895CE (CCIR/EIA)

Monochrome video graphic printer

•High-resolution 1280 dots x 608 lines printing (in WIDE 2 scan mode) and 256 steps of grey level •12.8 dpm or 325 dpi print resolution •High quality, glossy, near photographic printing with newly developed printing paper, UPP-110HG •The smoothing feature provides smoother, clearer image output •Automatic selection of CCIR/EIA video signal •Worldwide power supply for AC 100 to 120 / 220 to 240 V •Automatic paper load system for simple operation •Multiple copies (up to a maximum of ten) •Audible alarm when printer needs paper or the video signal is absent •Compact and lightweight •Fast printing of approximately 3.9 seconds per screen (with smoothing feature turned off and printer set to STANDARD print mode) •Thermal head protection •Wide scanning function (NORMAL/WIDE 1/WIDE 2) •2x zoom for either half of picture in either STANDARD or SIDE mode •Selectable 4:3/1:1 aspect ratio •Approx. 203 prints* out of UPP-110HG(18 m)** •Complies with the MDD



*Approx. 195 prints when each image cut out
**In default setting

Supplied accessories:	AC power cable BNC cable (1.5m) Printing paper, roll (UPP-110HG) Head-cleaning sheet Operation manual
Consumables:	High Quality Printing Paper UPP-110S (110 mm × 20 m) High Density Printing Paper UPP-110HD (110 mm × 20 m) High Glossy Printing Paper UPP-110HG (110 mm × 18 m)
Optional accessory:	Remote Control Unit RM-91

Specifications

Thermal Head:	Thin film thermal head, 1280 dots
Gradations:	256 steps of grey level (quasi)
Printed Picture Size:	STANDARD print mode, at 4:3 aspect ratio (CCIR) NORMAL: 90 × 68 mm (3 5/8 × 2 3/4 inches) WIDE 1: 94 × 71 mm (3 3/4 × 2 7/8 inches) WIDE 2: 100 × 74 mm (4 × 3 inches) (EIA) NORMAL: 90 × 69 mm (3 5/8 × 2 3/4 inches) WIDE 1: 94 × 72 mm (3 3/4 × 2 7/8 inches) WIDE 2: 100 × 74 mm (4 × 3 inches)
Effective pixels:	STANDARD print mode, at 4:3 aspect ratio (CCIR) NORMAL: 1150 dots × 560 lines WIDE 1: 1210 dots × 582 lines WIDE 2: 1280 dots × 608 lines (EIA) NORMAL: 1150 dots × 472 lines WIDE 1: 1210 dots × 490 lines WIDE 2: 1280 dots × 508 lines
Printing speed:	Approx. 3.9 seconds/screen (STANDARD print mode, smoothing off) Approx. 6.8 seconds/screen (SIDE print mode, smoothing off) Approx. 7.8 seconds/screen (STANDARD print mode, smoothing on)
Picture memory:	8-bit frame memory
Input/Output:	VIDEO IN: BNC, CCIR or EIA composite video signal, 1.0 Vp-p, 75 Ω/high impedance selectable VIDEO OUT:BNC, Loop through or E to E selectable
Remote:	Stereo mini jack for an optional Remote Control Unit RM-91
Power requirements:	AC 100 to 120 / 220 to 240 V, 50/60 Hz
Power consumption:	Max. 120 W
Dimensions:	Approx. 154 (W) × 105 (H) × 260 (D) mm (6 1/8 × 4 1/4 × 10 1/4 inches)
Mass:	3.4 kg (7 lb 8 oz)
Safety regulations:	EN60601-1, EN60950
EMC regulations:	EN60601-1-2, EN50081, EN50082-1, AS425.1
EC directive:	LVD, MDD, EMC

Print Media at a Glance

Size	Description	Model	Print sheets/pack	UP-D70XR	UP-D70A	UP-D8800*	UP-7300MDP
A4	Blue Transparency Film	UPT-730BL	100	O			
	Colour Print Pack	UPC-8810	100	O	O	O	
	Colour Print Pack	UPC-7010	100				O
	B&W Print Pack	UPC-8820	100	O	O	O	
	B&W Print Pack	UPC-7020*/7020A	100				O
	Self-Laminating Colour Print Pack	UPC-740	72	O	O		
	OHP Transparency Print Pack	UPC- 8830*	100			O	
	OHP Transparency Print Pack	UPC- 7030	100				O
	Self-Laminating Colour Print Pack	UPC-8840*/8840A	70		O	O	
A4+	Colour Print Pack	UPC-8817	100	O	O	O	
	Self-Laminating Colour Print Pack	UPC-747	72		O		

	Description	Model	Print sheets/pack	UP-D5500	UP-5600MDP
A5	Colour Print Pack	UPC-5510	200	O	O
	Colour Print Pack	5UPC-5510	5 packs x 200	O	O
	Ink Ribbon Holder for UPC-UPC-5510/5UPC-5510	UPA-5500		O	O
	Colour Print Pack	UPC-5510C	200	O	O
	OHP Transparency Print Pack	UPC-5530*	100		O

	Description	Model	Print sheets/pack	UP-2850P/2800P/2300P	UP-2330P	UP-2100P
A6	Colour Print Pack	UPC-2010	200	O		O
	B&W Print Pack	UPC-2020	200	O		
	Self-Adhesive Stickers Print Pack	UPC-20S01**	200	O	O	
	4-Split Self-Adhesive Stickers Print Pack	UPC-20S04**	200	O	O	
	16-Split Self-Adhesive Stickers Print Pack	UPC-20S16	200	O	O	
	Self-Laminating Colour Print Pack	UPC-2040A**	120		O	
	Colour Postcard Print Pack	UPC-2070E	150	O	O	

	Description	Model	Print sheets/pack	UPX-C21/UP-D2600S/D2600	UP-D2500	UP-DP10
A6 (Digital)	Colour Print Pack	UPC-2010	200	O	O	
	B&W Print Pack	UPC-2020	200	O	O	
	Self-Adhesive Stickers Print Pack	UPC-20S01**	200	O	O	
	4-Split Self-Adhesive Stickers Print Pack	UPC-20S04**	200	O	O	
	16-Split Self-Adhesive Stickers Print Pack	UPC-20S16	200	O	O	
	Self-Laminating Colour Print Pack	UPC-2040A**	120	O	O	
	Self-Laminating Colour Print Pack	UPC-2045	120	O		
	Colour Postcard Print Pack	UPC-2070E	150	O	O	
	Self-Laminating Colour Print Pack	UPC-10P23E	25			O
	Self-Laminating Colour Print Pack	UPC-10P34	25			O
	Self-Laminating Sticker Print Pack	UPC-10S01	25			O

ID Card	Description	Model	Print sheets/pack	UP-D6500/D6400/D6300	UP-D6600*
	Colour Ink Ribbon (CMYL)	5UPR-6040	5 packs x 250	O	O
	Colour Ink Ribbon (CMYKL)	5UPR-6080	5 packs x 200	O	O
	Black and White Ribbon (K)	UPR-6025	approx. for 1000 prints	O	O

	Description	Model	Paper length/roll	UP-980CE	UP-960CE	UP-930*/910*
A4	Blue Transpacency Film	UPT-210BL	12.5 m	O		
Width	High Density Print Paper	UPP-210HD	25 m	O	O	O
	High Quality Print Paper	UPP-210SE	25 m	O	O	O
	High Density Print Paper	UPP-216HD	25 m			O
	High Quality Print Paper	UPP-216SE	25 m			O

	Description	Model	Paper length/roll	UP-895CE	UP-890CE*/D890	UP-860CE*/D860E*
A6	High Glossy Print Paper	UPP-110HG	18 m	O		
Width	Superior Density Print Paper	UPP-110HA	18 m		O	
	High Density Print Paper	UPP-110HD	20 m	O	O	O
	High Quality Print Paper	UPP-110S	20 m	O	O	O

Print Media at a Glance (for discontinued printers)

Size	Description	Model	Print sheets/pack	UP-5000 series*
A5	Colour Print Pack	UPC-5010A	100	O
	Colour Print Pack	UPC-5010P	100	O
	Colour Print Pack	10UPC-5010S	10 packs x 100	O
	Ink Ribbon Holder for 10UPC-5010S	UPA-5000		O
	B&W Print Pack	UPC-5020A	100	O
	OHP Transparency Print Pack	UPC-5030	50	O

	Description	Model	Print sheets/pack	UP-1000 series*	UP-3000 series*
A6	Colour Print Pack	UPC-1010	100	O	
	Colour Print Pack	20UPC-1010	20 packs x 100	O	
	Colour Print Pack	UPC-3010	80		O
	B&W Print Pack	UPC-1020	100	O	
	B&W Print Pack	UPC-3020	80		O
	4-Split Self-Adhesive Stickers Print Pack	UPC-S04**	100	O	
	16-Split Self-Adhesive Stickers Print Pack	UPC-S16**	100	O	
	16-Split Self-Adhesive Stickers Print Pack	20UPC-S16**	20 packs x 100	O	
	Self-Laminating Colour Print Pack	5UPC-1040*	5 packs x 75	O	
	Self-Laminating Colour Print Pack	5UPC-1040A**	5 packs x 75	O (1200IVP/1200EPM only)	
	Self-Laminating Colour Print Pack	5UPC-3040	5 packs x 60		O (3000EP only)
	Colour Postcard Paper	20UPP-1070	20 packs x 75	O	
	Colour Postcard Cartridge	20UPR-1070	for 1500 prints	O	

Foot Switch/Remote Commander at a Glance

Type	Descripion	Model	UP-7300MDP	UP-5600MDP	UP-2850P/2800P/2330P/2300P/2100P	UP-980CE/960CE/895CE
Foot	Multiple Function Foot Switch	FS-30		O		
Switch	Simple Foot Switch	FS-36			O	
Remote	Simple Remote Commander	RM-91	O	O	O	O
Commander	Multiple Function Remote Commander	RM-5500		O	O	

* Production of these products has been discontinued. This information has been included to assist customers who are still using this media.
** For details, please consult your nearest Sony office.

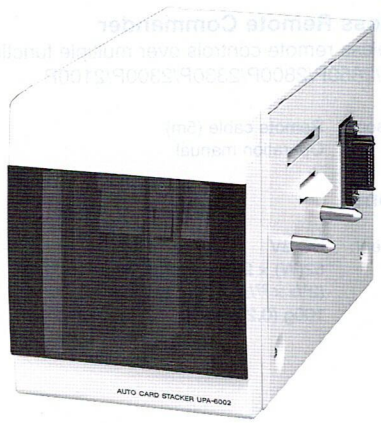
UPA-6002

Auto Card Stacker

•Auto card stacker for UP-D6500/D6400/D6300 high volume applications •Stores up to approx. 125*1 (UP-D6500: 250*2) cards after production

Dimensions: 138 (W) × 175 (H) × 257 (D) mm
(5 ½ × 7 × 10 ⅛ inches)

*1 In case of the card thickness is 0.76 mm.
*2 In case of the card thickness is 0.76 mm and combining with two of UPA-6003 Auto Card Feeder.



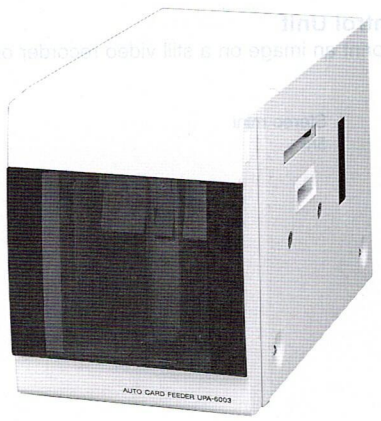
UPA-6003

Auto Card Feeder

•Auto card feeder for UP-D6500/D6400/D6300 high volume applications •Holds up to approx. 125*1 (UP-D6500: 250*2) cards ready for printing and laminating

Dimensions: 138 (W) × 175 (H) × 257 (D) mm
(5 ½ × 7 × 10 ⅛ inches)

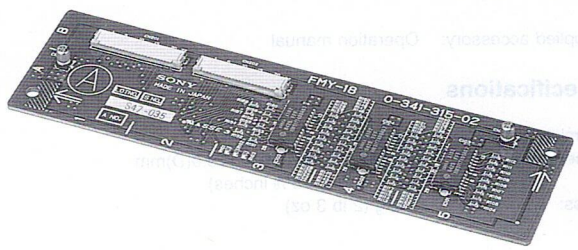
*1 In case of the card thickness is 0.76 mm.
*2 In case of the card thickness is 0.76 mm an using two of UPA-6003 Auto Card Feeder.



UPK-5500

Four Frame Memory Board

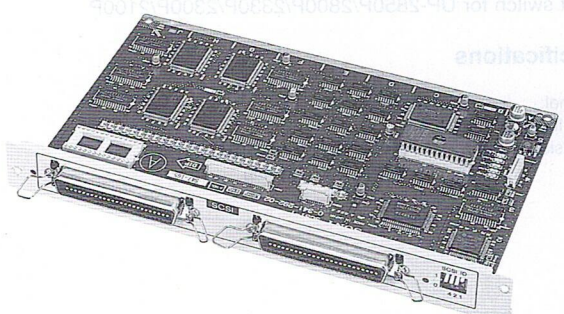
•Additional four frame memories for the UP-5600MDP •With this board, the internal frame memory of the UP-5600MDP can be expanded to eight frame memories



UPK-5502SC

Digital Interface Board

•SCSI interface kit for the UP-5600MDP •Provides A/D and D/A conversion function •Includes SCSI interface board and printer driver software which covers PhotoShop® plug-in modules both for Apple® Macintosh® and Microsoft Windows™ machines



RM-5500

Wired/Wireless Remote Commander

•Wired or wireless remote controls over multiple functions of the UP-5600MDP/2850P/2800P/2330P/2300P/2100P

Supplied accessory: Remote cable (5m)
Operation manual

Specifications

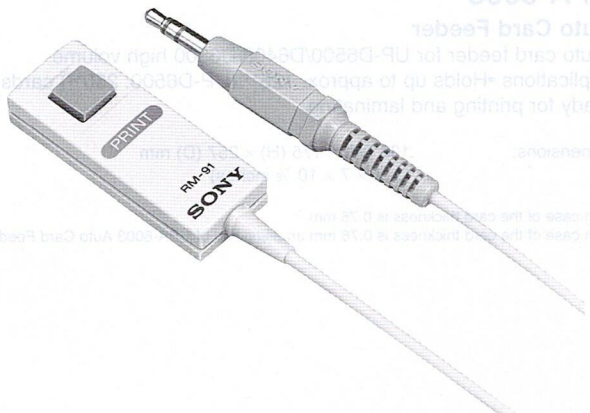
Power requirement:	DC 3V
Dimensions:	62(W) × 20(H) × 175(L)mm ($2^1/_2 \times {}^{27}/_{32} \times 7$ inches)
Mass:	100g (0.2 lb)

RM-91

Remote Control Unit

•To record or print an image on a still video recorder or a video printer

Connector:	Stereo mini
Cable length:	5m

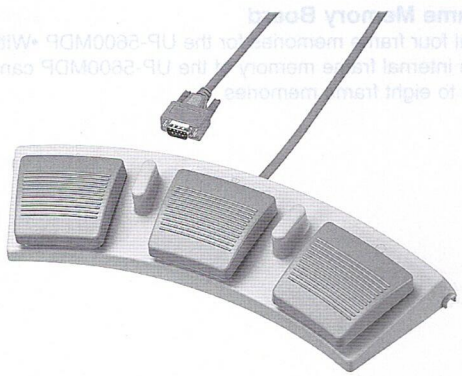


FS-30

Foot Switch

•Multiple function controls over the UP-5600MDP connected through the D-Sub 9-pin remote interface.

Supplied accessory: Operation manual



Specifications

Terminal:	D-sub 5-pin
Dimensions:	337.3(W) × 46.1(H) × 128.0(D)mm ($13^3/_8 \times 1^7/_8 \times 5^1/_8$ inches)
Mass:	1.0kg (2 lb 3 oz)

FS-36

Foot Switch

• Foot switch for UP-2850P/2800P/2330P/2300P/2100P

Specifications

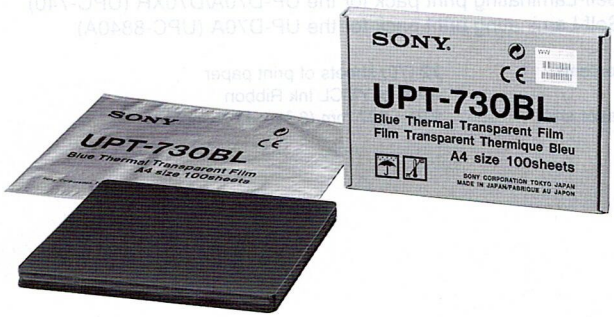
Terminal:	Stereo mini
Cable length:	5m
Dimensions:	175(W) × 53(H) × 105(D) mm ($7 \times 2^1/_8 \times 4^1/_4$ inches)

UPT-730BL

Blue Thermal Transparent Film

•A4-size blue thermal transparent film for UP-D70XR

Contents: 100 sheets of print film
Paper size: 297 × 210 mm (11 3/4 × 8 3/8 inches)



UPC-8810

A4-size Colour Printing Pack

•Colour print pack for the UP-D70A/D70XR

Contents: 100 sheets of print paper
A roll of YMC Ink Ribbon
Paper size: 210 × 297 mm (8 3/8 × 11 3/4 inches)

UPC-8817

A4 Plus size Colour Printing Pack

•Colour print pack for UP-D70A/D70XR

Contents: 100 sheets of print paper
1 roll of ink ribbon
Paper size: 222 × 322.4 mm (8 3/4 × 12 3/4 inches)

UPC-8820

A4-size B&W Printing Pack

•Monochrome print pack for the UP-D70A/D70XR

Contents: 100 sheets of print paper
A roll of B&W Ink Ribbon
Paper size: 210 × 297 mm (8 3/8 × 11 3/4 inches)

UPC-740 (8840A)

A4-size Self-Laminating Colour Printing Pack

•Self-Laminating print pack for the UP-D70A/D70XR (UPC-740)
•Self-Laminating print pack for the UP-D70A (UPC-8840A)

Contents: 72 (70) sheets of print paper
A roll of YMCL Ink Ribbon
Paper size: 210 × 297 mm (8 3/8 × 11 3/4 inches)

UPC-747

A4 Plus size Self-Laminating Colour Printing Pack

•Self-Laminating print pack for the UP-D70A

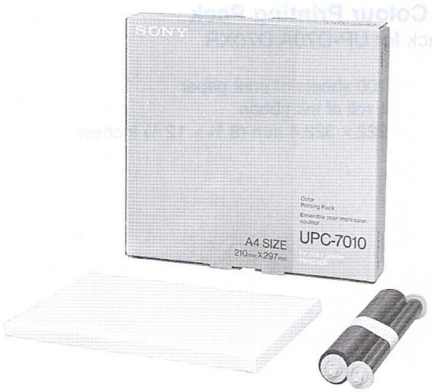
Contents: 72 sheets of print paper
A roll of YMCL Ink Ribbon
Paper size: 222 × 322.4 mm (8 3/4 × 12 3/4 inches)

UPC-7010

A4-size Colour Printing Pack

•Colour print pack for UP-7300MDP

Contents: 100 sheets of print paper
1 roll of ink ribbon for 100 print
Paper size: 210 × 297 mm (8 3/8 × 11 3/4 inches)



UPC-7020

A4-size Black and White Printing Pack

•Monochrome print pack for UP-7300MDP

Contents: 100 sheets of print paper
1 roll of ink ribbon for 100 print
Paper size: 210 × 297 mm (8 3/8 × 11 3/4 inches)

UPC-7030

A4-size OHP Printing Pack

•Colour OHP transparency print pack for UP-7300MDP

Contents:	100 transparencies 1 roll of ink ribbon for 100 print
Paper size:	210 × 297 mm (8 3/8 × 11 3/4 inches)

UPC-5510*

A5-size Colour Printing Pack

•Colour print pack for the UP-D5500/5600MDP

Contents:	200 sheets of print paper 1 roll of ink ribbon
Paper size:	148 × 210 mm (5 7/8 × 8 3/8 inches)

*Ink ribbon holder is not included.

5UPC-5510*

A5-size Colour Printing Pack

•Colour print pack for UP-D5500/5600MDP

Contents:	5 packs of 200 sheets of print paper 5 rolls of ink ribbon
Paper size:	148 × 210 mm (5 7/8 × 8 3/8 inches)

*Ink ribbon holder is not included.

UPC-5510C

A5-size Colour Printing Pack

•Colour print pack for UP-D5500/5600MDP

Contents:	200 sheets of print paper 1 ink ribbon with disposable cartridge
Paper size:	148 × 210 mm (5 7/8 × 8 3/8 inches)

UPA-5500

Ink Ribbon Holder

•Ink ribbon holder for UPC-5510 and 5UPC-5510

UPA-2001

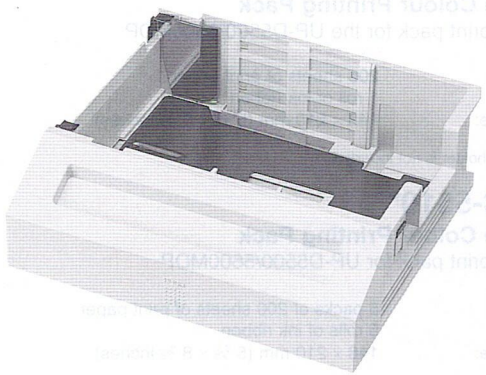
Paper Ejector

• Paper ejector for UP-D2600S/D2600/D2500/2850P/2800P/2330P/2300P

UPA-2002

Paper Tray

• Paper tray for UPC-2045, UPC-2040A and UPC-2070E



UPA-2003

Roller Cleaning Kit

•Roller cleaning kit for the UP-2000 series

Contents: Cleaning liquid (1)
Cleaning sheet for normal tray (1)
Cleaning sheet for UPA-2002 (optional large size tray) (1)

UPC-10P23E

Self-laminating Colour Printing Pack for UP-DP10

(for image file with aspect ratio of 2:3)

Contents: 25 sheets of print paper
1 roll of ink ribbon

Paper size: 180 × 100 mm

UPC-10P34

Self-laminating Colour Printing Pack for UP-DP10
(for image file with aspect ratio of 3:4)

Contents: 25 sheets of print paper
1 roll of ink ribbon

Paper size: 180 × 100 mm

UPC-10S01

Self-laminating Sticker Printing Pack for UP-DP10
(for image file with aspect ratio of 3:4)

Contents: 25 sheets of print paper
1 roll of ink ribbon

Paper size: 180 × 100 mm

UPC-2010

A6-size Colour Printing Pack
•Colour print pack for UPX-C21, UP-D2600S/D2600/D2500/2850P/2800P/2300P/2100P

Contents: 200 sheets of print paper
1 roll of ink ribbon
Paper size: 130 × 88 mm (5 1/8 × 3 1/2 inches)

UPC-2020

A6-size Black and White Printing Pack
•Monochrome print pack for UPX-C21, UP-D2600S/D2600/D2500/2850P/2800P/2300P

Contents: 200 sheets of print paper
1 roll of ink ribbon
Paper size: 130 × 88 mm (5 1/8 × 3 1/2 inches)

UPC-20S01

A6-size Self-Adhesive Stickers Printing Pack

•Printing pack for UPX-C21, UP-D2600S/D2600/D2500/2850P/2800P/2330P/2300P

Contents:	200 sheets of print paper 1 cartridge of ink ribbon
Paper size:	130 × 88 mm (5 ⅛ × 3 ½ inches)

UPC-20S16

A6-size 16-Split Self-Adhesive Stickers Printing Pack

•Printing pack for UPX-C21, UP-D2600S/D2600/D2500/2850P/2800P/2330P/2300P

Contents:	200 sheets of print paper 1 cartridge of ink ribbon
Paper size:	130 × 88 mm (5 ⅛ × 3 ½ inches)

UPC-20S04

A6-size 4-Split Self-Adhesive Stickers Printing Pack

•Printing pack for UPX-C21, UP-D2600S/D2600/D2500/2850P/2800P/2330P/2300P

Contents:	200 sheets of print paper 1 cartridges of ink ribbon
Paper size:	130 × 88 mm (5 ⅛ × 3 ½ inches)

UPC-2040A

A6-size Self-laminating Colour Printing Pack

• Self-laminating colour print pack for UPX-C21, UP-D2600S/D2600/D2500/2330P

Contents:	120 sheets of print paper 1 cartridge of ink ribbon
Paper size:	148 × 100 mm (5 ⅞ × 4 inches)

UPC-2045

A6-size Self-laminating Colour Printing Pack

•Self-laminating colour printing pack for UPX-C21, UP-D2600S/D2600

Contents: 120 sheets of print paper
1 cartridge of ink ribbon
Paper size: 148 × 100 mm (5 7/8 × 4 inches)

UPC-2070E

A6-size Postcard Printing Pack

•Postcard printing sheet for UPX-C21, UP-D2600S/D2600/ D2500/2850P/2800P/2300P

Contents: 150 sheets of print paper
1 cartridge of ink ribbon
Paper size: 148 × 100 mm (5 7/8 × 4 inches)

UPT-210BL

Blue Transparent Film

•Type Ⅲ blue transparent film roll for UP-980CE (210 mm × 12.5 m)

UPP-210HD

High Density Printing Paper

•Type II high density thermal paper roll for UP-980CE/960CE (210 mm × 25 m)

UPP-210SE

High Quality Printing Paper

•Type II normal density thermal paper roll for UP-980CE/960CE
(210 mm × 25 m)

UPP-110HA

Superior Density Printing Paper

•Type IV superior density thermal paper roll for the UP-D890
(110 mm × 18 m)

UPP-110HD

High Density Printing Paper

•Type II high density thermal paper roll for UP-D890/895CE
(110 mm × 20 m)

UPP-110S

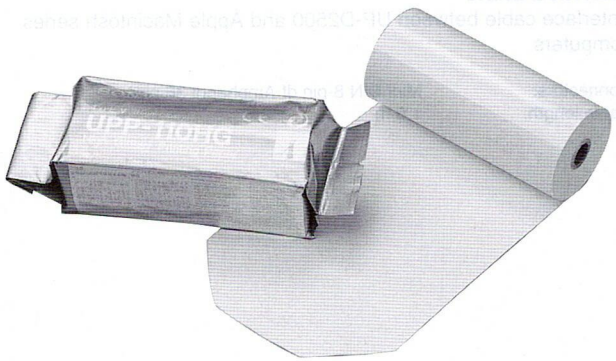
High Quality Printing Paper

•Type I normal density thermal paper roll for UP-D890/895CE
(110 mm × 20 m)

UPP-110HG

High Glossy Printing Paper

•Type V high glossy thermal paper roll for the UP-895CE (110 mm × 18 m)



5UPR-6080

Colour Ink Ribbon

•Colour ink ribbon for UP-D6500/D6400/D6300
•Provides YMCK colour print and thermal lamination

5UPR-6040

Colour Ink Ribbon

•Colour ink ribbon for the UP-D6500/D6400/D6300
•Provides YMC colour print and thermal lamination

UPR-6025

Black and White Ribbon

•Black and White ribbon for UP-D6500/D6400/D6300

UPZ-2000M

Interface cable

•Interface cable between UP-D2500 and Apple Macintosh series computers

Connectors:	Mini DIN 8-pin df Amphenol 36-pin
Cable length:	1.5 m

UPZ-7001

Video Interface Cable

•Interface cable between UP-7300MDP and video equipment which outputs colour high scan signals

Connectors:	DN50-20-pin ↔ BNC (×5)
Cable length:	2 m

UPZ-7002

Video Interface Cable

•Interface cable between UP-7300MDP and video equipment which outputs monochrome high scan signals

Connectors:	DN50-20-pin ↔ BNC
Cable length:	5 cm

UPZ-7003

Hi-line terminator

•For 75Ω termination •Used when UP-7300MDP is used without monitoring display

UPZ-7000M

Video interface cable

•Interface cable between UP-7300MDP and Apple Macintosh series computers

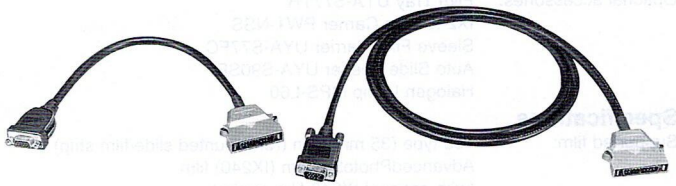
Connectors: DN50-20-pin ↔ D-sub 15-pin
Cable length: 1.5 m, 0.3 m

UPZ-7000I

Video interface cable

•Interface cable between UP-7300MDP and IBM PS/2 computers

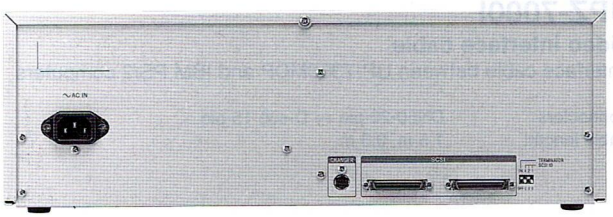
Connectors: DN50-20-pin ↔ D-sub 15-pin
Cable length: 1.5 m, 0.3 m



UY-S90

Film Scanner

•Scans a frame in ten seconds, at a maximum resolution of 2,216 dpi (2,048 x 3,072 pixels). •High-speed consecutive scanning of a 36-frame, 135 type (35 mm) film at 1,108 dpi (1,024 x 1,536 pixels) which is saved on the host PC hard disk drive in just four minutes. •High-quality performance with Automatic Color Compensation. •Internal JPEG compression*1 •DX code decoding*1 •Automatic film loading. •Compatible with negatives and positives, B/W and color of the following formats: 135 type (35 mm) film (roll / mounted slide / film strip) AdvancedPhotoSystem (IX240) film (with optional IX240 film carrier) •Easy setup and simple operation



Supplied accessories:	Halogen lamp (2) Sleeve carrier Slide carrier AC power cable Operational manual TWAIN driver and utility software*2 for Windows 95/98, Windows NT 4.0 and Mac OS 8.0 or later for PowerPC
Optional accessories:	Film Tray UYA-S77TR IX240 Film Carrier PW1-NSS Sleeve Film Carrier UYA-S77FC Auto Slide Feeder UYA-S90SF Halogen Lamp MPS-L60

Specifications

Supported film:	135 type (35 mm) film (roll/mounted slide/film strip) AdvancedPhotoSystem (IX240) film (with optional IX240 film carrier) Accepts negatives, positives, B/W, and color
Scanning method:	One-path scanning with 3-line RGB color CCD
Light source:	Halogen lamp
Scanning size:	135 type film: 23.5 × 35.3 mm (15/16 × 1 7/16 inches) IX240 type film: 15.6 x 27.9 mm (5/8 x 1 1/8 inches)
Maximum resolution:	Approx. 2,212 dpi (135 type), 3,326 dpi (IX240)
Scanning pixels:	

		Thumbnail	LD	SD	HD	UD
135 type (35mm)	Normal	192 × 128	384 × 256	768 × 512	1,536 × 1,024	3,072 × 2,048
	Panorama	192 × 68	384 × 136	768 × 272	1,536 × 544	3,072 × 1,088
	Slide	176 × 116	352 × 232	704 × 464	1,408 × 928	2,816 × 1,856
	Slide Panorama	176 × 68	352 × 136	704 × 272	1,408 × 544	2,816 × 1,088
IX240 (APS)	Normal	192 × 108	456 × 256	912 × 512	1,824 × 1,024	3,648 × 2,048
	Panorama	192 × 68	456 × 160	912 × 320	1,824 × 640	3,648 × 1,280
	Classic	160 × 108	384 × 256	768 × 512	1,536 × 1,024	3,072 × 2,048
	APS Slide	144 × 80	288 × 160	576 × 320	1,152 × 640	2,304 × 1,280

Scanning Time*3:

Film type		135 (36 Ex. Film roll)	IX240 (40 Ex. Film roll)
Pre-scanning time		Approx. 40 s	
Scanning time	LD, SD	Approx. 2.5 s / frame	Approx. 3 s / frame
	HD	Approx. 2.5 s / frame	Approx. 6 s / frame
	UD	Approx. 10 s / frame	Approx. 23 s / frame

Color depth:	Internal processing: 12 bits per color Output: 8 bits per color
Interface:	SCSI-2 (Half-pitch, pin-type connector)
System requirements:	
For Windows:	Platform PC/AT compatible OS Windows 95 / 98, Windows NT 4.0 SCSI host adapter Adaptec AHA-2940 or 2930 series Display SVGA (800 x 600 or higher) CPU Pentium processor recommended RAM 64 MB recommended
For Macintosh*4:	CPU Power PC OS Mac OS 8.0 or later Display SVGA (800 × 600 or higher)

Safety regulations:	UL1950, UL122, CSA C22.2 No.950, EN6950
EMC regulations:	FCC Class A, IC Class A, CE EN50081 class B+EN50082-1, AU AS4251.1
Power requirements:	100 to 120/220 to 240 V, 50/60 Hz
Power consumption:	240 V: 0.6 A max
Dimensions:	438 (W) × 148 (H) × 560 (D) mm (17 1/4 × 5 7/8 × 22 1/8 inches)
Mass:	Approx. 12 kg (26 lb 7 oz)

*1 Effective when used with the bundled scanning utility software.
*2 Utility software is not available in some areas.
*3 Does not include data transfer time.
*4 To use Macintosh G3 and G4, one of the following host adapter must be installed: Adaptec PowerDomain-2940 series or SCSIConnect 2906.

UYA-S77FC

Sleeve Film Carrier

•Sleeve film carrier for 135 type (35 mm) film

Mass: 630 g (1 lb 6 oz)

UYA-S77TR

(attached with UY-S90)

Film Tray

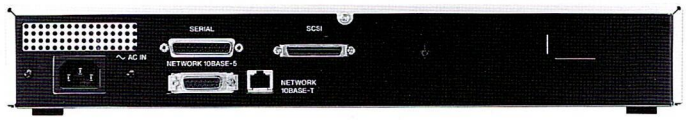
•Film tray for roll type film

Mass: 600 g (1 lb 5 oz)
Dimensions: 215 × 134 × 259 mm
(8 ½ × 5 ⅜ × 10 ¼ inches)

UPA-D3

Digital print server

•Incorporates DICOM 3.0 compliant software to provide multi-modality connectivity between DICOM*1 compliant medical imaging equipment and selected Sony printers
•Capability to daisy-chain up to six selected Sony printers
•Utilizes industry standard TCP/IP protocols •Includes a sophisticated colour matching system for use with digital images from medical modalities such as Ultrasound, X-Ray, Nuclear, MRI and CT



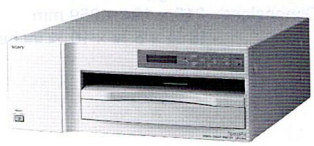
Specifications

•DICOM ver. 3.0 •CPU: R4700
•32MByte RAM •1GByte HDD

Sony's DICOMpatible printers produce images through a completely dry process.

The UP-D70A Digital Colour Printer is capable of producing extremely high quality color or black and white images in both full-bleed A4 and regular A4 sizes. The printer features a fast print speed and a resolution of 300 dpi.

The UP-D5500/5600MDP*2 Digital Colour Printer is remarkable for its ability to produce extremely high resolution prints at 300 dpi, and its very fast print time. High quality A5 size prints can be made.



UP-D70A

UP-D5500

UP-D5600MDP

*1 DICOM (The Digital Imaging and Communication in Medicine) is standardized by ACR (The American College of Radiology) and NEMA (The National Electrical Manufactures Association).
*2 The optional UPK-5502SC Digital Interface Board and UPK-5500 Four-frame Memory Board need to be inserted in the UP-5600MDP.

DKC-ST5

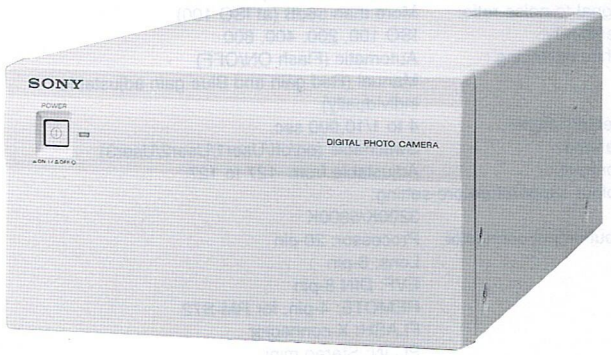
Digital Photo Camera

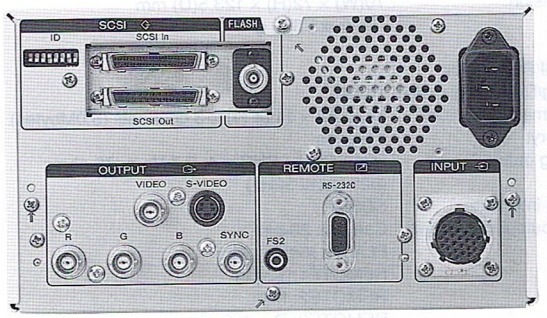
•Digital Photo Camera with the superior image quality •For professional use in fields such as portraiture, commercial photography and microscopy •2/3-inch 1.4 million pixel CCDs •2560 × 2048 resolution (output) •Clear picture without blur by three Progressive Scan CCDs •Live monitoring and instant proofing of images are possible •Overlay function provides the ability to preview the composition of an imge shot by DKC-ST5 and an image from a computer •Continuous shooting up to nine images •Quick transfer of images via SCSI port to computer •Easy operation

Supplied Accessories:	Remote controller AC power cord Software (for Windows '95 and Macintosh) Ferrite core

Specifications

Image device:	2/3-inch progressive scan CCD
Total pixel number:	Approx. 1,400,000 pixels
Color separation:	3-CCD prism system with diagonal spatial offset
Lens mount:	2/3-inch bayonet
Output data size:	2,560 × 2,048
Sensitivity:	ISO 20, 40, 80, 160 equivalent (selectable)
Shutter speed:	1/10,000 to 4 sec. 1/1,000 to 1/15 sec. (with flash sync.)
Continuous shooting:	2 frames/sec. (up to 9 frames)
Buffer memories:	9 frames
Digital interface:	SCSI-2, RS-232C
Monitor out:	Video, S-Video, R/G/B
Dimensions	Camera head: 120(W) × 90(H) × 202.2(D) mm ($4\frac{3}{4} \times 3\frac{5}{8} \times 8$ inches) Processor unit: 211(W) × 365(H) × 128.5(D) mm ($8\frac{3}{8} \times 14\frac{3}{8} \times 5\frac{1}{8}$ inches)
Mass:	Camera head: 1.3 kg (2 lb 14 oz) Processor unit: 6 kg (13 lb 4 oz)





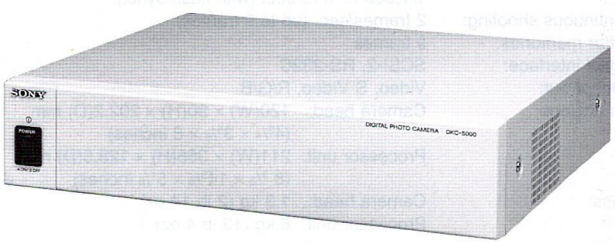
DKC-5000

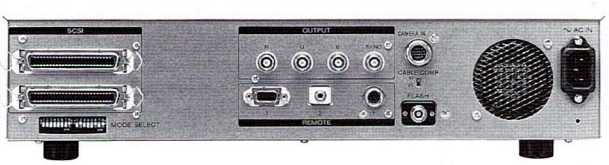
Digital Photo Camera

•High resolution of 800 (h) x 800 (v) TV lines •1/2-inch three-CCD camera (470K pixels each) •Diagonal pixel offset •10-bit analog-to-digital conversion and Look Up Table (LUT) realizing delicate adjustments of color saturation and gamma characteristics •Strobe synchronization •Equipped with two-frame memory •Controllable from a computer via SCSI •1/2-inch 38mm bayonet mount

Supplied Units/Accessories:
- Camera head
- Digital processor
- Camera cable (10m)
- Release switch (RM-S72)
- Software (Photoshop Plug-in)
- SCSI cable
- AC power cord

Optional Accessories:
- DKB-5008 (Frame Memory board)
- VCL-713BXS
- DXF-40BCE
- DXF-41





Specifications

Camera Head

Imager:	3-chip 1/2-inch Interline-transfer CCD
Effective picture elements:	440,000 pixels
Total picture elements:	470,000 pixels
Resolution:	800 (horizontal) x 800 (vertical) TV lines
Spatial pixel offset:	Horizontal and vertical
Lens mount:	1/2-inch 38mm bayonet
Signal-to-noise ratio:	More than 56dB (at ISO 100)
Sensitivity:	ISO 100, 200, 400, 800
White balancing :	Automatic (Flash ON/OFF)
	Manual (Red gain and Blue gain adjustable individually)
Electric shutter:	4 to 1/10,000 sec.
Gamma:	Switchable (on/off/User1/User2/User3)
Contrast:	Adjustable from -127 to 127
Colour temperature pre-setting:	
	3200K/5600K
Input/output connector:	Processor: 20-pin
	Lens: 6-pin
	EVF: DIN 8-pin
	REMOTE: 4-pin, for RM-S72
	FLASH: X-connector
	PC IN: Stereo mini
	TRIG: Stereo mini
Operating temperature:	5°C to 35°C
Dimension:	70(W) × 72(H) × 123.5(D) mm
Mass:	(Approx.) 620 g

Digital Processor

Analog/Digital conversion:	10-bit
Final image data size:	1520 (h) × 1144 (v) × 3 channels (5.0Mbytes)
Memory:	2 planes
Analog output:	R/G/BSync.: BNC × 4, 0.7 Vp-p, 75 ohms (625 lines/ 50Hz)
Digital interface:	SCSI-2
Input/output connector:	Camera: 20-pin
	FLASH: X-connector
	REMOTE1: 12-pin
	REMOTE2: Mini
	REMOTE3: D-sub 9-pin
	SCSI: Amphenol 50-pin x 2
Power requirements:	AC 220V to 240 V (50/60Hz)
Power consumption:	0.7A
Dimension:	423(W) × 105.5(H) × 356.5(D) mm
Mass:	Approx. 9 kg

DKC-CM30

Digital Still Camera

•Accepts C-mount capability •Alternative operating methods-shutter release on the handheld camera with the supplied remote release, optional DKA-GP30 Camera Grip or RM-91 Remote Control Unit •640 × 480 pixels resolution •Progressive Scan CCD for clear pictures without movement blur •JPEG compression •4 MB flash memory holds 30 images captured in high resolution of 640 × 480 or 120 images captured in standard resolution of 320 × 240 pixels •Strobe synchronization capability •Immediate viewing of captured images with the LCD monitor •Computer control and image data transfer via RS-232C port

Supplied accessories:	Remote shutter release RS-232C cable Video Cable RCA/BNC conversion connector MGI PhotoSuite SE on CD-ROM Operating instructions for camera and software
Optional accessories:	Camera grip DKA-GP30 AC power adapter/charger DKA-AC30 Rechargeable lithium-ion battery NP-F550

Specifications

Image device:	1/3-inch progressive scan CCD (Effective pixel number: 320,000 pixels)
Image data size:	640 × 480 pixels
Compression method:	JPEG
Storage:	4 MB internal flash memory
Number of images:	High resolution: 30 images (640 × 480 pixels) Standard resolution: 120 images (320 × 240 pixels)
White balance:	Auto/3,200K/5,400K* (selectable)
Lens mount:	C-mount
Exposure control:	CCD iris (when flash is not used)
Flash:	External flash, hot shoe and X terminal equipped
Photometric system:	TTL, CCD, centre-weighted averaging metering system
Shutter speeds:	1/4 to 1/4,000 seconds
Sensitivity:	Equivalent to ISO 90
LCD monitor:	2-inch TFT colour LCD monitor with 110,000 pixels
Self-timer:	10 seconds
Digital I/F:	RS-232C
Video output:	NTSC
Other I/O:	Remote shutter release connector, DC IN connector
Power supply voltage:	8.4 V (at AC power adapter connector) 7.2 V (at battery terminals)
Power consumption:	3.7 W (when LCD monitor is on)
Dimensions:	81 (W) × 61 (H) × 58 (D) mm (3 ¼ × 2 ¼ × 2 ⅜ inches)
Mass:	430 g (15 oz)

DKC-FP3

Digital Still Camera

•Professional digital still camera ergonomically designed similar to 35 mm cameras •Equipped with high speed digital interface, IEEE1394 •High performance Wfine CCD™ to achieve high resolution of 1,344 x 1,024 pixels •5x Optical zoom lens with fast aperture •Optical viewfinder and 2.5-inch color LCD •Auto/manual operations for control settings •Fast and Continuous Operation with 3 MB buffer memory •Up to 2.5 hours of operation (1,700 consecutive shots*) with InfoLITHIUM™ Rechargeable Battery Pack •Removable PCMCIA Card** and "Memory Stick"™ Media •Histogram feature for checking the exposure •Guide Line Function (Top Marker, Bottom Marker)

* Flash and LCD monitor off (CAM mode)
** Some type of PC card may not be used.

Supplied Accessories:	8 MB "Memory Stick" MSA-8A "Memory Stick"/ PC Card Adaptor MSAC-PC2 Remote Controller RM-S7D Remote controller cable Video cable IEEE1394 cable (6pin-6pin/3.5 m) Lens cap Finder cap AC adapter/charger (AC-VQ800) TWAIN driver software (CD-ROM) Operation Manual
Optional Accessories:	InfoLITHIUM Rechargeable Battery Pack NP-F550 Soft Case LCM-D700 IC Recording Media "Memory Stick" MSA-4A/8A/16A Digital Color Printer UP-D2500

Specifications

Imager

Optical Size:	1/2-inch
Imager Type:	Wfine CCD (Progressive Scan, RGB Primary Color Filter, Square Pixel CCD)
Number of Pixels:	1.5 million (Total), 1.4 million (effective)

Lens

Zoom Ratio:	5x
F No.:	F2 to 2.4
Focal Length:	f = 5.2 to 26 mm (35 mm film equivalent: 28-140mm)
Element:	13 elements in 10 groups
Filter Size	ø62 mm
Minimum Object Distance:	20 cm in all Focal length, Auto Macro
Aperture:	F2 to 11 (Wide), F2.4 to 11 (Tele) / 21 steps

Camera

Shutter Speed:	4 to 1/2,000 s (1/4 to 1/2,000 s in AE mode, ISO 50) (1/8 to 1/2,000 s in AE mode, ISO 100) (1/30 to 1/2,000 s in AE mode, ISO 400)
Shutter:	Electrical shutter and mechanical shutter
Focus Control:	CCD TTL Auto/Manual
Exposure Control:	Programmed AE/Aperture priority AE/ Shutter speed priority AE/Manual, AE Lock function
EV Compensation:	-2EV - +2EV (1/4 EV steps)
Metering System:	Center-weighted averaging/Spot
Sensitivity:	ISO 50/100/400 equivalent
White Balance:	Auto/Hold/Indoor/Outdoor
Digital Interface:	IEEE1394 (Digital Camera Command Set) 6-pin (Power source is not available.)

Built-in Flash

Type:	Self-regulating Flash
G.N.:	10
Mode:	Auto/Forced/Disable
Synchronization Speed:	4 to 1/2,000 s

Optical Viewfinder

Type:	SLR Type, Built-in Focusing Screen
Field of View Percentage:	92%
LCD Display in Finder:	Shutter Speed, Aperture, EV Compensation, AE Lock, AF, Flash, White Balance, Metering System

LCD Monitor

Size:	2.5-inch
Type:	TFT color LCD made of low-temperature polysilicon
Resolution:	180,000 dots
Display Control:	Contrast, Brightness, Color, Picture, Display Size
Refresh Rate:	25 frames/s

Recording System

Image Data Size:	1,344 × 1,024 pixels, 640 × 480 pixels
Recording Media:	PCMCIA Flash ATA TypeII "Memory Stick" (PC card adaptor required)
Recording Format:	JPEG (Compressed), TIFF (No Compressed)

Number of Images

		JPEG			TIFF
Recording Media	Data Size	Low	Middle	High	Super
16 MB Memory Stick	1,344 × 1,024	82	41	20	3
16 MB Memory Stick	640 × 480	246	123	61	17
8 MB Memory Stick	1,344 × 1,024	40	20	10	1
8 MB Memory Stick	640 × 480	122	61	30	8

Functions

Camera Mode:	Continuous shooting, 2x digital zoom, interval recording, Self-timer
Playback Mode:	INDEX display, Enlarged, Rotate, Autoplay, Quick-review, Protect, Segmentation (Folder)
Other input/output:	Video output, Accessory shoe

General

Power Requirement:	DC 7.2 V
Power Consumption:	0.9 A, DC 7.2 V (CAM mode with LCD monitor ON) 0.6 A, DC 7.2 V (PLAY mode with LCD monitor ON)
Power Supply:	InfoLITHIUM Rechargeable Battery Pack NP-F550 AC-VQ800
Battery Life/ Shots:	2.5 hours/1,700 shots (Flash off, LCD monitor off, CAM mode)
Dimension (W/H/D):	133 × 104 × 153 mm (5 ¼ × 4 ⅛ × 6 ⅛ inches)
Mass:	Approx. 890 g (1 lb 15 oz) (without battery and PC Card)
Driver Software:	TWAIN Driver, 1394 Driver Computer: IBM PC/ AT Compatible OS: Windows 98 CPU: Intel MMX Pentium 150MHz or more Memory: 32 MB or more (64 MB or more is recommended.) CD-ROM Drive Recommended application software Adobe PhotoShop 5.0 or higher Adobe PhotoDeluxe 3.0 or higher

Recommended IEEE1394 Adaptor

IEEE1394 Adaptor (Board):
RATOC-PCIFW1 (by RATOC System Inc.)
IEEE1394 Adaptor (PC Card):
RATOC-CBFW1 (by RATOC System Inc.)

DKR-700P

Digital Still Recorder

•Digital still image recorder for a wide range of applications •Recording medium: MD Data medium/Picture MD •500 TV lines digital recording •JPEG Compression •Selection is possible from five picture modes - Non Compression/Fine/ Normal/Quick1/Quick2 •Flash Synchronization •Image Information such as the title of the image, sent from RM-C700 or an external computer, can be recorded along with the images •Interval recording to be set from 5 sec. to 60 min. •Automatic playback •Multiple inputs/ outputs •List search function with RM-C700 •Image Search funtion •Rapid image retrieval •SCSI port equipped allowing image data to be transferred to a computer •RS-232C port allows sophisticated control from a computer •Foot switch operation is possible with FS-20 and FS-30

Supplied Accessories:	Operational manual
	Software (Photoshop Plug-in for Windows)
	AC Power Cord
Optional accessories:	RM-C700 (Remote Control Unit)
	RM-91 (Remote Control Unit)
	FS-20 (Foot Control Unit)
	FS-30 (Foot Control Unit)
	MMD-140 (Rewritable MD DATA medium)

Specifications

Recording Medium:	Mini Disc for DATA
File Format:	Picture MD
Data Compression Method:	
	JPEG Base Line; Fixed Data Length algorithm
Data Size/Sub Sampling:	MAIN 768 × 592 (Y:U:V 4:2:2)
	SD(Quick play back) 640 x 480 (Y:U:V 4:2:0)
	INDEX (Image search) 80 x 60 (Y:U:V 4:2:0)
Sampling Frequency:	14.75MHz
Digital Interface:	SCSI RGB 4:4:4 pixel sequential
Digital I/O	SCSI-2 Half pitch pin conncetor
Horizontal resolution:	More than 500 TV lines
Video input:	Composite (BNC x 1)
	Y/C (DIN 4-pin S type)
	RGB (BNC × 3)
	Sync (BNC × 1)
Video output:	Composite (BNC × 1)
	Y/C (DIN 4-pin S type)
	RGB (BNC × 3)
	Sync (BNC × 1)
Image information:	Image Number (Auto increment)
	Title 15 digits
	ID Number 15 digits
	year/month/date/hour/min./sec.
	Comment 250 Bytes
Recording mode:	NON COMPRESSION/FIN/NORMAL/QUICK1/QUICK2
Camera control mode:	CAMERA1 BNC (External Sync)
	(for Long Time Exposure by DXC-930P/950P)
	CAMERA 2 BNC (External Sync)
	(for REC Control by DXC-950P)
External control:	RS-232C (D-sub 9-pin female) for computer control
Power requirement:	AC220/230/240V switchable, 50Hz
Power consumption:	0.30 A max.
Mass:	Approx. 7.0kg
Safety approval:	EN60950, EN50081-1, EN50082-1, FCC Class A
	(The DKR-700P meets all applicable provisions of the EN60601-1 safety standard.)

*When flash id on, white balance is automatically set to 5400K.

RM-C700

Remote control unit for the DKR-700P

•For convenient operation of the DKR-700P
•File name can be input to the images of the DKR-700P

FS-30

Foot Switch

•Multiple function controls over the UP-5600MDP connected through the D-sub 9-pin remote interface.

Supplied accessory: Operation manual

Specifications

Terminal:	Disub 5-pin
Dimensions:	337.3(W) × 46.1(H) × 128.0(D) mm

MMD-140

Rewritable MD DATA

•Large capacity (140MB)
•Compact size (Diameter 64mm, Width 1.2mm)

RM-91

Remote control unit

•To record or print an image on a still video recorder or a video printer

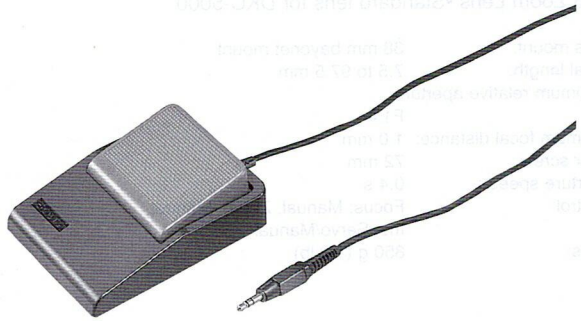
Connector:	Stereo mini
Cable length:	5 m

FS-20

Foot swich

•To record or print an image on a still video recorder or a video printer

Connector:	Monaural mini
Cable length:	5m



DKA-GP30

Camera Grip

•DKC-CM30 Camera Grip for stable photographing

Dimensions:	141.3 (W) × 110.4 (H) × 59.9 (D) (mm) (5 5/8 × 4 3/8 × 2 3/8 inches)
Mass:	280 g (10 oz)

DKA-AC30

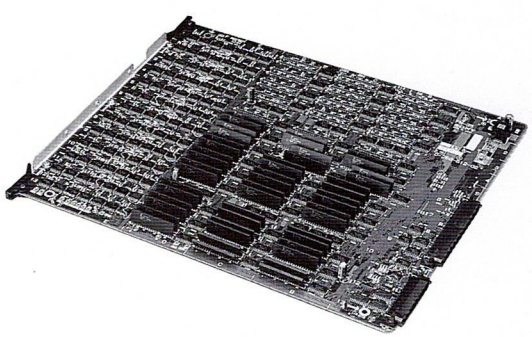
AC Power Adapter/charger

•DKC-CM30 AC adaptor/battery charger for charging Lithium-ion battery such NP-F550/F530

Dimensions:	56 (W) × 44 (H) × 100 (D) (mm) (2 1/4 × 1 3/4 × 4 inches)
Mass:	Approx. 190 g (7 oz)

DKB-5008

Frame Memory Board for the DKC-5000



VCL-713BXS

Zoom Lens for DKC-5000

•x13 Zoom Lens •Standard lens for DKC-5000

Lens mount:	38 mm bayonet mount
Focal length:	7.5 to 97.5 mm
Maximum relative aperture:	F1.4
Minimum focal distance:	1.0 mm
Filter screw:	72 mm
Aperture speed :	0.4 s
Control:	Focus: Manual, Zoom: Manual Iris: Servo/Manual
Mass:	850 g (1.9 lb)

VCL-1205BYS

Zoom Lens for DKC-ST5

Lens mount:	2/3-inch bayonet
Focal length:	12.5 to 63 mm (equivalent to a focal length of 50 to 252 mm in 35 mm film format)
Aperture:	F2 to F16
Mass:	1.2 kg (2 lb 10 oz)

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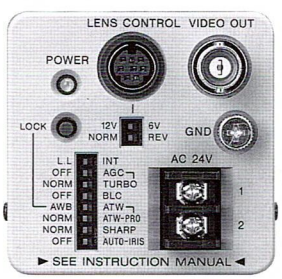
SSC-CX34P

Built-in Zoom Lens Colour Video Camera

•Especially designed for surveillance applications •Built-in x12 switchable motorized/auto iris zoom lens with zoom/focus preset capabilities •The lens zoom, focus and iris function can be remotely controlled from an external controller/receiver (Lens control voltage, ±6 V or ±12 V is selectable) •Digitally-controlled Smart Control function provides intelligent and flexible automatic backlight compensation •High density 1/3-inch IT Hyper HAD CCD offers a high resolution of 470 TV lines and high sensitivity with a minimum illumination of 4.5 lx (F1.8) •Excellent signal-to-noise ratio of 50 dB •Extra gain with Turbo AGC function, providing 6 dB more gain than conventional AGC •Aperture/Sharp Mode makes object outlines sharper in the reproduced picture •Three alternative automatic white balance control modes: AWB (Auto White Balance) by one push/ATW (Auto Tracing White Balance)/ATWpro •New ATWpro mode ensures reliable white balance control based on the absolute colour temperature of the object (The effective operational colour range is 2500 K to 6000 K)

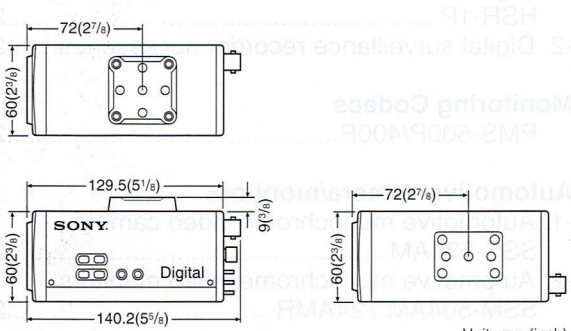


Supplied Accessories: Tripod adaptor (1)
Lens control cable (1)
Operation manual (1)

Specifications

Image device:	1/3-inch Interline Transfer Hyper HAD CCD
Picture elements:	752 (H) × 582 (V)
Sensing area:	4.4 × 3.3 mm
Scanning system:	625 lines, 2:1 interlace
Sync system:	Internal or external with AC line lock
Phase control:	V phase adjustment (±90°)
Horizontal resolution:	470 TV lines
Lens mount:	Built-in ×12 zoom lens
Minimum illumination:	AGC ON (TURBO mode) 2.4 lx at F1.8 (30 IRE)* 4.5 lx at F1.8 (50 IRE) 15 lx at F1.8 (100 IRE) *Equivalent with 1.1 lx at F1.2 fixed lens (30 IRE)
Aperture control:	SHARP/NORMAL switchable
Enhancer:	3H
Automatic gain control (AGC):	TURBO/NORMAL/OFF switchable
Electronic shutter:	Not applicable
White balance:	ATWpro/ATW/AWB (one-push) switchable
Backlight compensation:	Smart control (BLC ON/OFF switchable)
Signal-to-noise ratio:	50 dB (Weight ON, AGC OFF)
Video out:	BNC, 1.0 Vp-p, 75 Ω, sync negative
Operating temperature:	–10°C to 50°C (14°F to 122°F)
Storage temperature:	–40°C to 60°C (–40°F to 140°F)
Power requirements:	AC 24 V, 50 Hz
Power consumption:	4.8 W
Mass:	520 g (1 lb 2 oz)
Connectors:	AC 24 V terminals, LENS CONTROL (Mini DIN 8-pin), VIDEO OUT (BNC), GND

Dimensions



Unit: mm (inch)

SURVEILLANCE PRODUCTS

SSC-DC50AP/54AP/58AP

CCD Colour Video Camera

•Especially designed for surveillance applications •High density ½" IT CCD •Exwave HAD™ technology offers excellent sensitivity with a minimum illumination of 0.8 lx (F1.2), very low smear, and high resolution of 470 TV lines •Digitally-controlled Smart Control function provides intelligent and flexible automatic backlight compensation •For faster backlight compensation, the detection area can be preset •Excellent signal-to-noise ratio of 50 dB •Y/C output capability •Extra gain with Turbo AGC function, providing 6 dB more gain than conventional AGC •Aperture/Sharp Mode makes object outlines sharper in the reproduced picture •Four alternative white balance control modes : AWB (Auto White Balance) by one push/ATW (Auto Tracing White Balance)/ATWpro/5600K •New ATWpro mode ensures reliable white balance control based on the absolute colour temperature of the object (The effective operational colour range is 2500 K to 6000 K) •Variable speed electronic shutter •Accepts 2 types of auto iris lenses (DC servo type/Video servo type) •Accepts C/CS-mount lenses

Exclusive features for SSC-DC50AP

•External synchronization with VBS or VS •Single cable operation (video/sync/power triple multiplex transmission) for easy installation with the optional YS-W150P/W250P Camera Adaptor (Mode A) •Monitor out function for on-the-spot camera positioning (Mode A) •12 V DC power supply can also be used (Mode B)

Exclusive features for SSC-DC54AP/58AP

•External synchronization with VBS, VS or AC line lock •AC power operation : AC 24 V (DC54AP), AC 220-240 V (DC58AP)

Supplied Accessories:	Lens connector (1) Lens mount cap (1) Operation manual (1)	
Optional accessories:	Camera adaptor	YS-W150P, YS-W250P (for SSC-DC50AP only)
	Aspherical auto iris lens	VCL-3ADXEA (3.8 mm, F0.8)
	Auto iris lens	VCL-S03XEA (3.6 mm, F1.6) VCL-S06XEA (6.0 mm, F1.2) VCL-S12XEA (12 mm, F1.2)
	Manual iris lens	VCL-S03XM (3.6 mm, F1.6) VCL-S06XM (6.0 mm, F1.2)

Specifications

Image device:	1/2-inch Interline Transfer Exwave HAD CCD
Picture elements:	752(H) x 582(V)
Sensing area:	6.3 × 4.7 mm
Scanning system:	625 lines, 2:1 interlace
Sync system:	DC50AP : Internal or external with VBS/VS or MPX-VS DC54AP/DC58AP : Internal or external with VBS/VS or AC line lock
Phase control:	H/SC phase adjustment (H phase:±0.12H, SC phase:360° with 0/180° switch) V phase adjustment (±90°) for AC line lock (SSC-DC54AP/DC58AP only)
Horizontal resolution:	470 TV lines
Lens mount:	C/CS-mount adjustable
Minimum illumination:	AGC ON (TURBO mode) 0.4 lx at F1.2 (30 IRE) 0.8 lx at F1.2 (50 IRE) 3.0 lx at F1.2 (100 IRE)
Aperture control:	SHARP/NORMAL switchable
Automatic gain control (AGC):	TURBO/NORMAL/OFF switchable
Electronic shutter:	1/50, 1/120, 1/250, 1/500, 1/1000, 1/2000, 1/4000, 1/10000 (seconds)
CCD IRIS control:	ON/OFF switchable, 1/50 to 1/100000 (seconds)
White balance:	ATWpro/ATW/AWB (one-push)/5600K switchable
Backlight compensation:	Smart Control (BLC ON/OFF switchable, eight AE spot is selectable)
Signal-to-noise ratio:	50 dB (Weight ON, AGC OFF)

SSC-DC50AP SSC-DC54AP

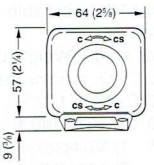
Lenses are optional SSC-DC58AP

SSC-DC50AP SSC-DC54AP SSC-DC58AP

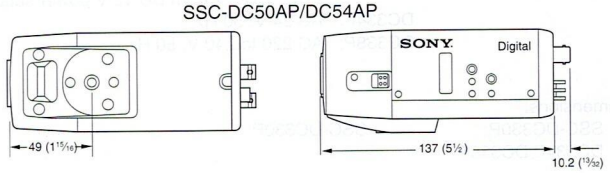
Video out:	BNC: 1.0 Vp-p, 75 Ω, sync negative Y/C: Y: 1.0 Vp-p, 75 Ω, sync negative C: 0.3 Vp-p, at burst level, 75 Ω
Operating temperature:	-10°C to 50°C (14°F to 122°F)
Storage temperature:	-40°C to 60°C (-40°F to 140°F)
Power requirements:	DC50AP: 1) Multiplexing with YS-W150P/W250P 2) DC 12 V from DC 12 V power supply DC54AP: AC 24 V, 50 Hz DC58AP: AC 220-240 V, 50 Hz
Power consumption:	DC50AP: 1) 5.5 W supplied from YS-W150P/W250P 2) 4.5 W at DC 12 V DC54AP: 6.0 W DC58AP: 5.5 W
Mass:	DC50AP/DC54AP: 600 g (1 lb 5 oz) DC58AP: 900 g (2 lb)
Auto iris type:	DC/VIDEO servo type
Connectors:	DC50AP: DC 12 V terminals, LENS (4-pin), Mode A (Triple multiplexing operation): DC IN/VS IN/VIDEO OUT (BNC), MONITOR OUT (BNC), S-VIDEO OUT (Mini DIN 4-pin) Mode B (DC 12 V operation):VIDEO OUT (BNC), VBS/VS IN (BNC), S-VIDEO OUT (Mini DIN 4-pin) DC54AP: AC 24 V terminals, LENS (4-pin), VBS/VS IN (BNC),VIDEO OUT (BNC), S-VIDEO OUT (Mini DIN 4-pin), GND DC58AP: LENS (4-pin), VBS/VS IN (BNC),VIDEO OUT (BNC), S-VIDEO OUT (Mini DIN 4-pin)

Dimensions

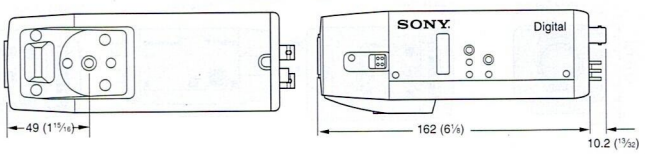
SSC-DC50AP/DC54AP/DC58AP



SSC-DC50AP/DC54AP



SSC-DC58AP



SURVEILLANCE PRODUCTS

SSC-DC330P/DC334P/DC338P

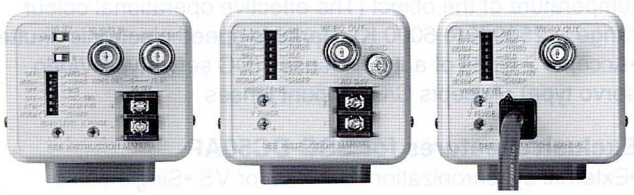
CCD colour video camera

•Especially designed for surveillance applications •1/3" IT HAD CCD •Exwave HAD technology offers extremely high sensitivity with a minimum illumination of 0.8 lx (F1.2) and high horizontal resolution of 480 TV lines •Excellent signal-to-noise ratio of more than 50 dB •Digital control Smart Control function executes the intelligent and flexible automatic backlight compensation •Turbo AGC raises sensitivity by automatically controlling video gain in a range that is 6 dB wider than the normal AGC range •Aperture/Sharp Mode makes object outlines sharper in the reproduced picture •CCD IRIS function allows use of inexpensive manual iris lenses •Two alternative automatic white balance control modes: ATW (Auto Tracing White Balance)/ATW pro •Accepts 2 types of auto iris lenses (DC servo type/Video servo type) •Accepts both CS and C-mount lenses

SSC-DC330P

SSC-DC334P

SSC-DC338P



SSC-DC330P SSC-DC334P SSC-DC338P

Exclusive features for SSC-DC330P

•External synchronization with VBS or VS •Single cable operation (video/sync/power triple multiplex transmission) for easy installation with the optional YS-W150P/W250P Camera Adaptor (Mode A) •Monitor out function for on-the-spot camera positioning (Mode A) •12 V DC power supply can also be used (Mode B)

Exclusive features for SSC-DC334P/338P

•External synchronization with AC line lock •AC power operation : AC 24 V (DC334P), AC 220-240 V (DC338AP)

Supplied accessories:
- Lens connector
- Lens mount cap
- Operating instruction manual

Specifications

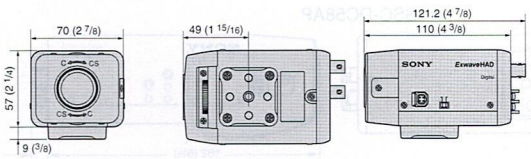
Image device:	1/3-inch Interline Transfer HAD CCD
Picture elements:	752 (H) × 582 (V)
Sensing area:	4.8 mm × 3.6 mm
Video signal system:	PAL standard
Scanning system:	625 lines, 2:1 interlace
Sync system:	SSC-DC334P/338P: External with AC line lock SSC-DC330P: Internal or external with VS/VBS*
Horizontal resolution:	480 TV lines
Lens mount:	C/CS-mount (Back focus adjustable)
Minimum illumination:	AGC ON (TURBO mode) 0.4 lx at F1.2 (30 IRE) 0.8 lx at F1.2 (50 IRE) 6.5 lx at F1.2 (100 IRE)
Aperture:	SHARP/NORMAL switchable
Automatic Gain Control:	TURBO/NORMAL/OFF switchable
Phase control:	SSC-DC330P: H phase adjustment (+/-0.25H)
SSC-DC334P/DC338P:	V-phase adjustment (±90°)
CCD IRIS control:	ON/OFF switchable, 1/50 to 1/100000 s
White balance:	ATW pro/ATW switchable
Backlight compensation:	Smart Control
Signal-to-noise ratio:	More than 50 dB (Weight ON, AGC OFF)
Video out:	1.0 Vp-p, 75 Ω, sync negative
Operating temperature:	-10 to 50°C (14 to 122°F)
Storage temperature:	-40 to 60°C (-40 to 140°F)
Power requirements:	DC330P: 1) Multiplexing with YS-W150P/W250P 2) 12 V DC V from DC 12 V power supply DC334P: AC 24 V, 50 Hz DC338P: AC 220 to 240 V, 50 Hz
Power consumption:	DC330P: 5.0 W wupplied from YS-W150P/W250P 3.0 W at 12 V DC334P: 4.5 W DC338P: 5.5 W
Mass:	DC330P: 430 g (15 oz) DC334P: 550 g (1 lb 3 oz) DC338P: 770 g (1 lb 11 oz)
Auto iris lens:	DC servo type
Connectors:	DC330P: DC 12 V terminals LENS (4-pin) Mode A (Triple multiplexing operation): DC IN/VS IN/VIDEO OUT (BNC), MONITOR OUT (BNC) Mode B (DC 12 V operation): VS IN/VIDEO OUT (BNC) DC334P: VIDEO OUT (BNC), LENS (4-pin), AC 24 V terminal, GND DC338P: VIDEO OUT (BNC), LENS (4-pin)

* The burst signal is not locked

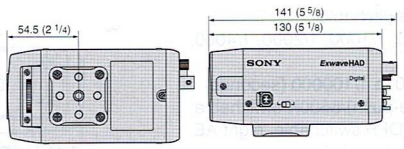
Dimensions:

SSC-DC330P/ DC334P/DC338P

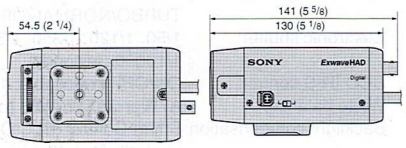
SSC-DC330P



SSC-DC334P



SSC-DC338P



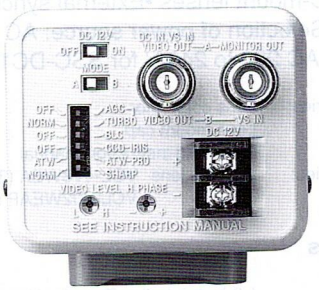
SURVEILLANCE PRODUCTS

SSC-DC10P

CCD Colour Video Camera

•Especially designed for surveillance applications •Digitally-controlled Smart Control function provides intelligent and flexible automatic backlight compensation •High density 1/3-inch IT Hyper HAD CCD offers a high resolution of 470 TV lines and high sensitivity with a minimum illumination of 1.7 lx (F1.2) •Excellent signal-to-noise ratio of 50 dB •Extra gain with Turbo AGC function, providing 6 dB more gain than conventional AGC •Aperture/Sharp Mode makes object outlines sharper in the reproduced picture •Two alternative white balance control modes : ATW(Auto Tracing White Balance) / ATWpro •New ATWpro mode ensures reliable white balance control based on the absolute colour temperature of the object (The effective operational colour range is 2500 K to 6000 K) •Accepts two types of auto iris lenses (DC servo type/Video servo type) •Accepts C/CS-mount lenses •External synchronization with VS •Single cable operation (video/sync/power triple multiplex transmission) for easy installation with the optional YS-W150P/W250P Camera Adaptor (Mode A) •Monitor out function for on-the-spot camera positioning (Mode A) •12 V DC power supply can also be used (Mode B)

Lens is optional

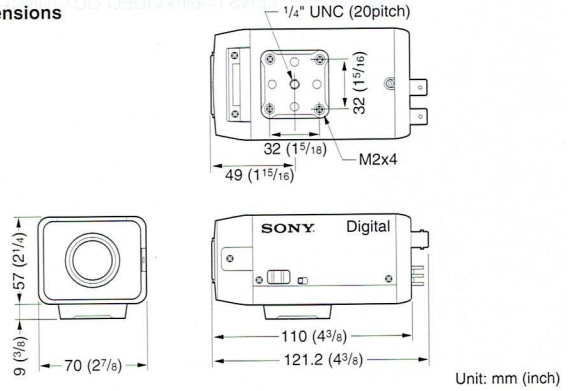


Supplied Accessories:	Lens connector (1) Lens mount cap (1) Operation manual (1)
Optional accessories:	Auto iris lens VCL-4V8WEA (3.5 mm to 8.0 mm, F1.8) VCL-S02WEAP (2.8 mm, F1.8)

Specifications

Image device:	1/3-inch Interline Transfer Hyper HAD CCD
Picture elements:	752 (H) × 582 (V)
Sensing area:	4.4 × 3.3 mm
Scanning system:	625 lines, 2:1 interlace
Sync system:	Internal or external with VS/VBS* or MPX-VS * The burst signal is not locked.
Phase control:	H phase adjustment (±0.25H)
Horizontal resolution:	470 TV lines
Lens mount:	C/CS-mount adjustable
Minimum illumination:	AGC ON (TURBO mode) 1.1 lx at F1.2 (30 IRE) 1.7 lx at F1.2 (50 IRE) 10 lx at F1.2 (100 IRE)
Aperture control:	SHARP/NORMAL switchable
Enhancer:	3H
Automatic gain control (AGC):	TURBO/NORMAL/OFF switchable
CCD IRIS control:	ON/OFF switchable, 1/50 to 1/100000 (seconds)
White balance:	ATWpro/ATW switchable
Backlight compensation:	Smart Control (BLC ON/OFF switchable)
Signal-to-noise ratio:	50 dB (Weight ON, AGC OFF)
Video out:	BNC: 1.0 Vp-p, 75 Ω, sync negative
Operating temperature:	–10°C to 50°C (14°F to 122°F)
Storage temperature:	–40°C to 60°C (–40°F to 140°F)
Power requirements:	1) Multiplexing with YS-W150P/W250P 2) DC 12 V from DC 12 V power supply
Power consumption:	1) 4.0 W supplied from YS-W150P/W250P 2) 3.0 W at DC 12 V
Mass:	430 g (15 oz)
Auto iris type:	DC/VIDEO servo type
Connectors:	DC 12 V terminals, LENS (4-pin), Mode A (Triple multiplexing operation): DC IN/VS IN/VIDEO OUT (BNC), MONITOR OUT (BNC) Mode B (DC 12 V operation): VIDEO OUT (BNC), VS IN (BNC)

Dimensions



Unit: mm (inch)

SURVEILLANCE PRODUCTS

SSC-DC14P/DC18P

CCD colour video camera

•Especially designed for surveillance applications •High density 1/3-inch IT Hyper HAD CCD offers high horizontal resolution of 470 TV lines and high sensitivity with a minimum illumination of 1.9 lx (F1.2) •Excellent signal-to-noise ratio of 50 dB •Digital control Smart Control function executes the intelligent and flexible automatic backlight compensation •Turbo AGC raises sensitivity by automatically controlling video gain in a range that is 6 dB wider than the normal AGC range •Aperture/Sharp Mode makes object outlines sharper in the reproduced picture •CCD IRIS function allows use of inexpensive manual iris lenses •Two alternative automatic white balance control modes: ATW (Auto Tracing White Balance)/ATW pro •Accepts 2 types of auto iris lenses (DC servo type/Video servo type) •Accepts both CS and C-mount lenses •External synchronization with AC line lock •Selection of power source: AC 24 V for SSC-DC14P, AC 220 to 240 V for SSC-DC18P

Supplied accessories:	Lens connector Lens mount cap Operating instruction manual
Optional accessories:	Auto iris lens VCL-4V8WEA (3.5 to 8.0 mm, F1.8) VCL-S02WEAP (2.8 mm, F1.3)

SSC-DC14P SSC-DC18P

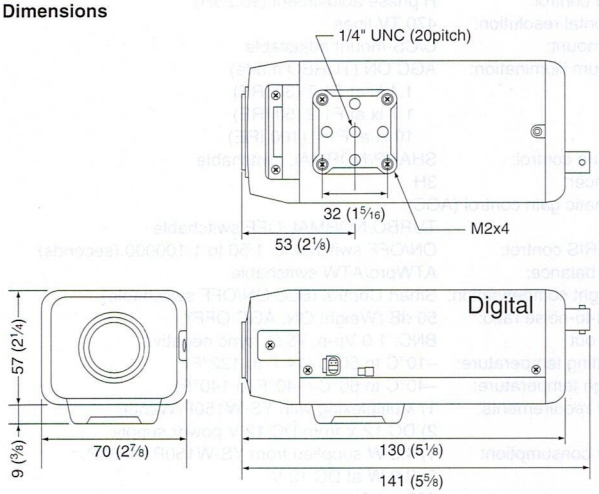
Lenses are optional

SSC-DC14P SSC-DC18P

Specifications

Image device:	1/3-inch Interline Transfer Hyper HAD CCD
Picture elements:	752 (H) × 582 (V)
Sensing area:	4.4 mm × 3.3 mm
Video signal system:	PAL standard
Scanning system:	625 lines, 2:1 interlace
Sync system:	Internal or external with AC line lock (SSC-DC14P: AC 24 V, SSC-DC18P: AC 220 to 240 V)
Horizontal resolution:	470 TV lines
Lens mount:	C/CS-mount (Back focus adjustable)
Minimum illumination:	AGC ON (TURBO mode) 1.2 lx at F1.2 (30 IRE) 1.9 lx at F1.2 (50 IRE) 13 lx at F1.2 (100 IRE)
Aperture:	SHARP/NORMAL switchable
Enhancer:	3H
Automatic Gain Control:	TURBO/NORMAL/OFF switchable
Phase control:	V-phase control (±90°)
CCD IRIS control:	ON/OFF switchable
White balance:	ATW pro/ATW switchable
Backlight compensation:	Smart Control
Signal-to-noise ratio:	50 dB (Weight ON, AGC OFF)
Video out:	1.0 Vp-p, 75 Ω, sync negative
Operating temperature:	–10 to 50°C (14 to 122°F)
Storage temperature:	–40 to 60°C (–40 to 140°F)
Power requirements:	SSC-DC14P: AC 24 V SSC-DC18P: AC 220 to 240 V
Power consumption:	SSC-DC14P: 4.5 W SSC-DC18P: 5.5 W
Mass:	SSC-DC14P: Approx. 550 g (1 lb 3 oz) SSC-DC18P: Approx. 770 g (1 lb 11 oz)
Auto iris lens:	DC/VIDEO driven type
Connectors:	SSC-DC14P: AC 24 V terminals, LENS (4-pin) VIDEO OUT (BNC), GND SSC-DC18P: LENS (4-pin),VIDEO OUT (BNC)

Dimensions



Unit: mm (inch)

SURVEILLANCE PRODUCTS

SSC-C108P/C104P

CCD colour video cameras

•Especially designed for surveillance applications •1/3-inch IT Hyper HAD CCD offers extremely high sensitivity with a minimum illumination of 0.9 lx (F1.2) •Excellent signal-to-noise ratio of 52 dB •Automatic backlight compensation •Turbo AGC improves sensitivity by boosting its video gain over the AGC range •CCD IRIS function allows use of inexpensive manual iris lenses •ATW (Auto Tracing White Balance) for white balance adjustment •Accepts 2 types of auto iris lenses (DC servo type/Video servo type) •Accepts both CS and C-mount lenses •External synchronization with AC line lock •AC 220 to 240 V power operation (SSC-C108P) •AC 24 V power operation (SSC-C104P)

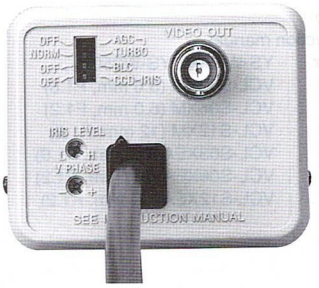
Supplied accessories:	Lens connector Lens mount cap Operating instruction manual
Optional accessories:	Auto iris lens VCL-4V8WEA (3.5 to 8.0 mm, F1.8) VCL-S02WEAP (2.8 mm, F1.3) Mounting bracket YT-B21

Specifications

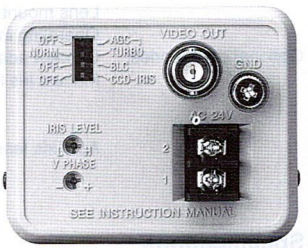
Image device:	1/3-inch Interline Transfer Hyper HAD CCD
Picture elements:	500 (H) × 582 (V)
Sensing area:	4.4 × 3.3 mm
Video signal system:	PAL standard
Scanning system:	625 lines, 2:1 interlace
Sync system:	External with AC line lock
Horizontal resolution:	330 TV lines
Lens mount:	C/CS-mount adjustable
Minimum illumination:	AGC ON (TURBO mode) 0.9 lx at F1.2 (40 IRE) 1.2 lx at F1.2 (50 IRE)
Enhancer:	3H
Automatic Gain Control:	TURBO/NORMAL/OFF switchable
Phase control:	V-phase control (±90°)
CCD IRIS:	1/50 to 1/100000 (seconds)
CCD IRIS control:	ON/OFF switchable
White balance:	ATW
Backlight compensation:	BLC ON/OFF switchable
Signal-to-noise ratio:	More than 52 dB (AGC OFF, Weight ON)
Video out:	1.0 Vp-p, 75 Ω, sync negative
Operating temperature:	–10 to 50°C (14 to 122°F)
Storage temperature:	–40 to 60°C (–40 to 140° F)
Power requirements:	C108P: AC 230 V, 50 Hz C104P: AC 24 V, 50 Hz
Power consumption:	C108P: 4.0 W C104P: 3.5 W
Mass:	C108P: 760 g (1 lb 11 oz) C104P: 550 g (1 lb 2 oz)
Auto iris lens:	DC/VIDEO driven type
Connectors:	C108P: VIDEO OUT (BNC), LENS (4-pin) C104P: VIDEO OUT (BNC), LENS (4-pin), AC 24 V terminals, GND

Lens is optional

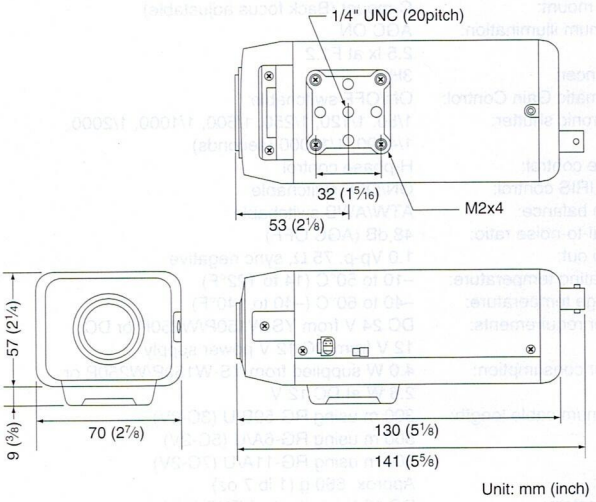
SSC-C108P



SSC-C104P



Dimensions



Unit: mm (inch)

SURVEILLANCE PRODUCTS

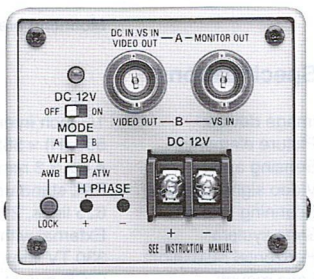
SSC-C370P

CCD colour video camera

•Especially designed for surveillance applications •High density 1/2-inch IT Hyper HAD CCD offers extremely high resolution of 470 TV lines and high sensitivity with a minimum illumination of 2.5 lx (F1.2) •Excellent signal-to-noise ratio of 48 dB •CCD IRIS function allows use of inexpensive manual iris lenses •Two alternative automatic white balance control modes: AWB (Auto White Balance)/ATW (Auto Tracing White Balance) •Variable speed electronic shutter •Accepts C-mount lenses •External synchronization with VS or VBS* •Single cable operation (video/sync/power triple multiplexing transmission) for easy installation with the optional YS-W150P/W250P Camera Adaptor (Mode A) •Monitor out function for on-the-spot camera positioning (Mode A) •12 V DC power supply can also be used (Mode B)

Lens is optional

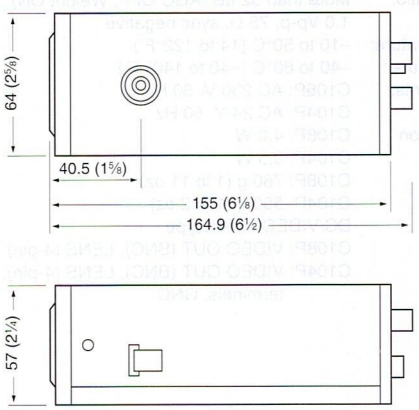
Supplied accessories:	Lens connector	
	Lens mount cap	
	Operating instruction manual	
Optional accessories:	Camera adaptor	YS-W150P, YS-W250P
	Manual iris lens	VCL-S03XM (3.6 mm, F1.6)
		VCL-S06XM (6.0 mm, F1.2)
		VCL-S12XM (12 mm, F1.2)
	Auto iris lens	VCL-S03XEA (3.6 mm, F1.6)
		VCL-S06XEA (6.0 mm, F1.2)
		VCL-S12XEA (12 mm, F1.2)



Specifications

Image device:	1/2-inch Interline Transfer Hyper HAD CCD
Picture elements:	752(H) × 582(V)
Sensing area:	6.3 mm × 4.7 mm
Video signal system:	PAL standard
Scanning system:	625 lines, 2:1 interlace
Sync system:	Internal or external with VS (VBS)*
Horizontal resolution:	470 TV lines
Lens mount:	C-mount (Back focus adjustable)
Minimum illumination:	AGC ON 2.5 lx at F1.2
Enhancer:	3H
Automatic Gain Control:	ON/OFF switchable
Electronic shutter:	1/50, 1/120, 1/250, 1/500, 1/1000, 1/2000, 1/4000, 1/10000 (seconds)
Phase control:	H-phase control
CCD IRIS control:	ON/OFF switchable
White balance:	ATW/AWB switchable
Signal-to-noise ratio:	48 dB (AGC OFF)
Video out:	1.0 Vp-p, 75 Ω, sync negative
Operating temperature:	–10 to 50°C (14 to 122°F)
Storage temperature:	–40 to 60°C (–40 to 140°F)
Power requirements:	DC 24 V from YS-W150P/W250P or DC 12 V from DC 12 V power supply
Power consumption:	4.0 W supplied from YS-W150P/W250P or 2.8 W at DC 12 V
Maximum cable length:	300 m using RG-59B/U (3C-2V) 500 m using RG-6A/U (5C-2V) 600 m using RG-11A/U (7C-2V)
Mass:	Approx. 660 g (1 lb 7 oz)
Connectors:	DC 12 V terminals, LENS (4-pin) Mode A (Triple multiplexing operation): DC IN/VS IN/VIDEO OUT (BNC), MONITOR OUT (BNC) Mode B (DC 12 V operation): VIDEO OUT (BNC), VS IN (BNC)

Dimensions



Unit: mm (inch)

*The SSC-C370P accepts VBS signals for external synchronization, however, the burst signal is not locked.

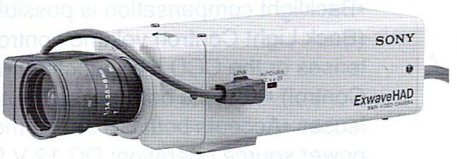
SPT-M320CE/M324CE/M328CE

CCD monochrome video cameras

•Especially designed for surveillance applications •1/3" IT HAD CCD •Exwave HAD technology offers extremely high sensitivity with a minimum illumination of 0.07 lx (F1.2) •Outstanding horizontal resolution of 570 TV lines •CCD IRIS function allows use of inexpensive manual iris lenses •Backlight compensation is possible with the LEVEL and BLC volume controls (only when using auto iris lenses or the CCD IRIS function) •DC servo circuit drives auto iris facility •Accepts C or CS-mount lenses

SPT-M320CE

SPT-M324CE



SPT-M328CE

Exclusive features of SPT-M320CE

•External synchronization with VS •Single cable operation (video/sync/power triple multiplex transmission) for easy installation with the optional YS-W150P/W250P camera adaptor (Mode A) •Monitor out function for on-the-spot camera positioning (Mode B) •12 V DC power supply can also be used (Mode B)

Exclusive features of SPT-M324CE/M328CE

•External synchronization with VS or AC Line Lock • AC 24 V (SPT-M324CE)/AC 220 to 240 V (SPT-M328CE) power operation

SPT-M320CE

SPT-M324CE

SPT-M328CE

Supplied accessories: Lens connector
Lens mount cap
Operating instruction manual

Specifications

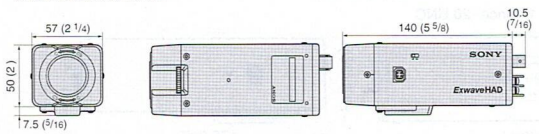
Image device:	1/3-inch Interline Transfer HAD CCD
Picture elements:	752 (H) × 582 (V)
Sensing area:	4.8 mm × 3.6 mm
Video signal system:	CCIR standard
Scanning system:	625 lines, 2:1 interlace
Sync system:	SPT-M324CE/M328CE: External with AC line lock SPT-M320CE: Internal or external with VS or MPX-VS
Horizontal resolution:	570 TV lines
Lens mount:	C/CS-mount (Back focus adjustable)
Minimum illumination:	AGC ON 0.04 lx at F1.2 (30 IRE) AGC ON 0.07 lx at F1.2 (50 IRE) AGC ON 0.3 lx at F1.2 (100 IRE)
Automatic Gain Control:	Turbo AGC permanently ON
Phase control:	V-phase adjustment (±90°)
CCD IRIS:	1/50 to 1/100000 (seconds)
CCD IRIS control:	ON/OFF switchable
Backlight compensation:	Adjustable
Signal-to-noise ratio:	More than 50 dB (AGC OFF)
Video out:	BNC, 1.0 Vp-p, 75 Ω, sync negative
Operating temperature:	-10 to 50°C (14 to 122°F)
Storage temperature:	-40 to 60°C (-40 to 140°F)
Power requirements:	M320CE: 1) Multiplexing with YS-W150P/W250P 2) 12 V DC V from DC 12 V power supply M324CE: AC 24 V, 50 Hz M328CE: AC 220 to 240 V, 50 Hz
Power consumption:	M320CE: 2.8 W supplied from YS-W150P/W250P 2.4 W at 12 V M324CE: 2.6 W M328CE: 3.8 W
Mass:	M320CE: 410 g (14 oz) M324CE: 340 g (12 oz) M328CE: 770 g (1 lb 11 oz)
Auto iris lens:	DC servo type

Connectors:
M320CE: DC 12 V terminals
LENS (4-pin)
Mode A: DC IN/VS IN/VIDEO OUT (BNC), MONITOR OUT(BNC)
Mode B: VS IN/VIDEO OUT (BNC)
M324CE: VIDEO OUT (BNC), LENS (4-pin), AC 24 V terminal, GND
M328CE: VIDEO OUT (BNC), LENS (4-pin)

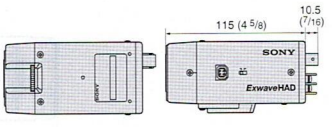
Dimensions:

SPT-M320CE

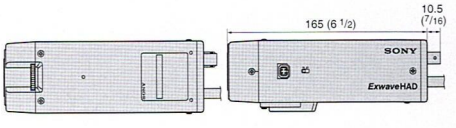
SPT-M320CE/
M324CE/M328CE



SPT-M324CE



SPT-M324CE

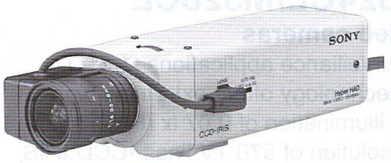


SURVEILLANCE PRODUCTS

SPT-M128CE/M124CE/M122CE

CCD monochrome video camera

•Especially designed for surveillance applications •1/3-inch IT Hyper HAD CCD •High horizontal resolution of 380 TV lines •High sensitivity with a minimum illumination of 0.1 lx at F1.2 (50 IRE) •Excellent signal-to-noise ratio of 45 dB •CCD IRIS allows the use of inexpensive manual iris lens •Backlight compensation is possible with the Level and BLC (Back Light Control) volume controls (when using auto iris lenses or the CCD IRIS function) •AGC (Automatic Gain Control) •Accepts both DC servo and VIDEO servo auto iris lenses •Accepts both CS and C-mount lenses •Alternative power source operation: DC 12 V for the SPT-M122CE, AC 24 V for the SPT-M124CE, AC 220 to 240 V for the SPT-M128CE •4-pin auto iris connector •External synchronization with AC line lock (SPT-M128CE/M124CE)



SPT-M128CE

SPT-M124CE

Lenses are optional

SPT-M122CE

SPT-M128CE

SPT-M124CE

SPT-M122CE

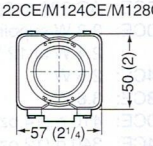
Supplied accessories:	Lens connector Lens mount cap Operating instruction manual
Optional accessories:	Auto iris lens VCL-4V8WEA (3.5 to 8.0 mm, F1.4) VCL-S02WEAP (2.8 mm, F0.8) VCL-3ADXEA (3.8 mm, F0.8)

Specifications

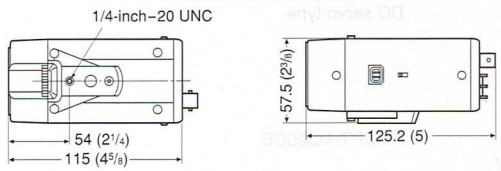
Image device:	1/3-inch Interline Transfer Hyper HAD CCD
Picture elements:	500(H) × 582(V)
Sensing area:	4.4 × 3.3 mm
Video signal system:	CCIR standard
Scanning system:	625 lines, 2:1 interlace
Sync system:	SPT-M128CE/M124CE: External with AC line lock SPT-M122CE: Internal
Horizontal resolution:	380 TV lines
Lens mount:	C/CS-mount (Back focus adjustable)
Minimum illumination:	0.06 lx at F1.2 (30 IRE) 0.1 lx at F1.2 (50 IRE) 0.4 lx at F1.2 (100 IRE)
Automatic Gain Control:	Always AGC ON
Phase control:	V-phase control (SPT-M128CE/M124CE)
CCD IRIS control:	ON/OFF switchable, 1/50 to 1/100000 (seconds)
Signal-to-noise ratio:	More than 45 dB (AGC ON)
Video out:	1.0 Vp-p, 75 Ω, sync negative
Operating temperature:	-10 to 50 °C (14 to 122 °F)
Storage temperature:	-40 to 60 °C (-40 to 140 °F)
Power requirements:	SPT-M128CE: AC 220 to 240 V SPT-M124CE: AC 24 V SPT-M122CE: DC 12 V
Power consumption:	SPT-M128CE: 3.5 W SPT-M124CE: 2.5 W SPT-M122CE: 2.4 W
Mass:	SPT-M128CE: Approx. 750 g (1 lb 10 oz) SPT-M124CE/M122CE: Approx. 320 g (11 oz)
Auto iris lens:	DC/Video servo type
Connectors:	SPT-M128CE: LENS (4-pin), VIDEO OUT (BNC) SPT-M124CE: LENS (4-pin), VIDEO OUT (BNC), AC 24 V terminals, GND SPT-M122CE: LENS (4-pin), VIDEO OUT (BNC), DC 12 V terminals

Dimensions

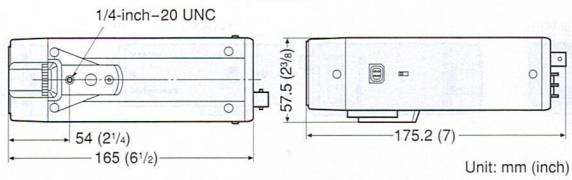
SPT-M122CE/M124CE/M128CE



SPT-M122CE/M124CE



SPT-M128CE



Unit: mm (inch)

SURVEILLANCE PRODUCTS

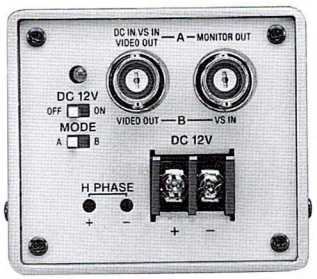
SSC-M370CE

CCD monochrome video camera

•Especially designed for surveillance applications •High density 1/2-inch IT Hyper HAD CCD offers extremely high resolution of 570 TV lines and high sensitivity with a minimum illumination of 0.3 lx (F1.2) •Excellent signal-to-noise ratio of 50 dB •CCD IRIS function allows use of inexpensive manual iris lenses •Variable speed electronic shutter •Accepts C-mount lenses •External synchronization with VS •Single cable operation (video/sync/power triple multiplexing transmission) for easy installation with the optional YS-W150P/W250P Camera Adaptor (Mode A) •Monitor out function for on-the-spot camera positioning (Mode A) •12 V DC power supply can also be used (Mode B)

Lens is optional

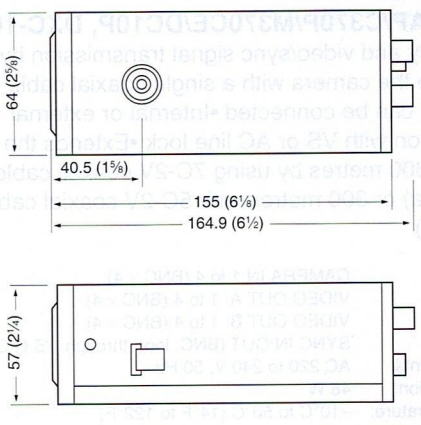
Supplied accessories:	Lens connector	
	Lens mount cap	
	Operating instruction manual	
Optional accessories:	Camera adaptor	YS-W150P, YS-W250P
	Manual iris lens	VCL-S03XM (3.6 mm, F1.6)
		VCL-S06XM (6.0 mm, F1.2)
		VCL-S12XM (12 mm, F1.2)
	Auto iris lens	VCL-S03XEA (3.6 mm, F1.6)
		VCL-S06XEA (6.0 mm, F1.2)
		VCL-S12XEA (12 mm, F1.2)



Specifications

Image device:	1/2-inch Interline Transfer Hyper HAD CCD
Picture elements:	752 (H) × 582 (V)
Sensing area:	6.3 mm × 4.7 mm
Video signal system:	CCIR standard
Scanning system:	625 lines, 2:1 interlace
Sync system:	Internal or external with VS
Horizontal resolution:	570 TV lines
Lens mount:	C-mount (Back focus adjustable)
Minimum illumination:	AGC ON 0.3 lx at F1.2
Automatic Gain Control:	ON/OFF switchable
Electronic shutter:	1/50, 1/120, 1/250, 1/500, 1/1000, 1/2000, 1/4000, 1/10000 (seconds)
Phase control:	H-phase control
CCD IRIS control:	ON/OFF switchable
Signal-to-noise ratio:	50 dB (AGC OFF)
Video out:	1.0 Vp-p, 75 Ω, sync negative
Operating temperature:	–10 to 50°C (14 to 122°F)
Storage temperature:	–40 to 60°C (–40 to 140°F)
Power requirements:	DC 24 V from YS-W150P/W250P or DC 12 V from DC 12 V power supply
Power consumption:	4.0 W supplied from YS-W150P/W250P or 2.8 W at DC 12 V
Maximum cable length:	300 m using RG-59B/U (3C-2V) 500 m using RG-6A/U (5C-2V) 600 m using RG-11A/U (7C-2V)
Mass:	Approx. 660 g (1 lb 7 oz)
Connectors:	DC 12 V terminals, LENS (4-pin) Mode A (Triple multiplexing operation): DC IN/VS IN/VIDEO OUT (BNC), MONITOR OUT (BNC) Mode B (DC 12 V operation): VIDEO OUT (BNC), VS IN (BNC)

Dimensions



Unit: mm (inch)

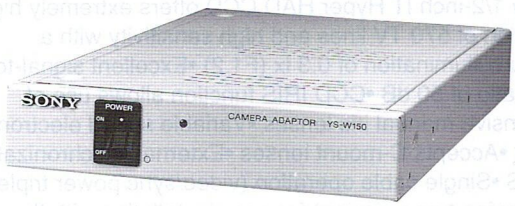
SURVEILLANCE PRODUCTS

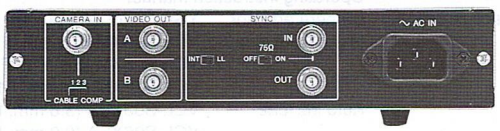
YS-W150P

AC adaptor for SSC-DC50AP/C370P/M370CE/DC10P, DXC-107AP

•Power supply and video/sync signal transmission by connecting to the camera with a single coaxial cable
•Internal or external synchronization with VS or AC line lock
•Extends the cable length up to 600 metres by using 7C-2V coaxial cable

Connectors:	CAMERA IN (BNC) VIDEO OUT (BNC × 2) SYNC IN/OUT (BNC, loop-through, 75Ω ON/OFF)
Power requirements:	AC 220 to 240 V, 50Hz
Power consumption:	15 W
Operating temperature:	–10°C to 50°C (14°F to 122°F)
Maximum cable length:	300 m using RG-59B/U (3C-2V) 500 m using RG-6A/U (5C-2V) 600 m using RG-11A/U (7C-2V)
Dimensions:	212(W) × 52(H) × 330(D) mm (8 3/8 × 2 1/8 × 13 inches)
Mass:	1.9 kg (4 lb 3 oz)



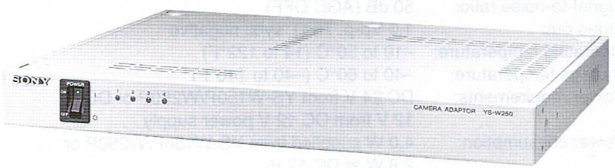


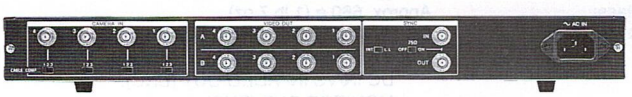
YS-W250P

AC adaptor for SSC-DC50AP/C370P/M370CE/DC10P, DXC-107AP

•Power supply and video/sync signal transmission by connecting to the camera with a single coaxial cable •Up to four cameras can be connected •Internal or external synchronization with VS or AC line lock •Extends the cable length up to 600 metres by using 7C-2V coaxial cable (SSC series camera) or 300 metres with 5C-2V coaxial cable (DXC-107AP)

Connectors:	CAMERA IN 1 to 4 (BNC × 4) VIDEO OUT A: 1 to 4 (BNC × 4) VIDEO OUT B: 1 to 4 (BNC × 4) SYNC IN/OUT (BNC, loop-through, 75 Ω ON/OFF)
Power requirements:	AC 220 to 240 V, 50 Hz
Power consumption:	48 W
Operating temperature:	–10°C to 50°C (14°F to 122°F)
Maximum cable length:	300 m using RG-59B/U (3C-2V) 500 m using RG-6A/U (5C-2V) 600 m using RG-11A/U (7C-2V)
Dimensions:	424 (W) × 52(H) × 330(D) mm (16 3/4 × 2 1/8 × 13 inches)
Mass:	3.6 kg (7 lb 15 oz)





SURVEILLANCE PRODUCTS

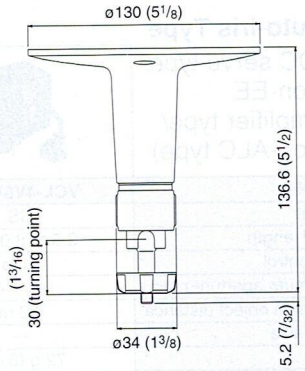
YT-B21

Mounting bracket

•For indoor use

Supplied accessories:	Mounting screw (×4) Operating instruction manual
Maximum load:	2 kg
Mass:	200 g

Dimensions:



Unit: mm (inch)

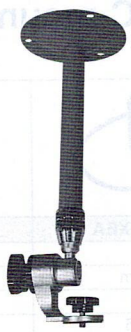
T-301/305/307

Mounting bracket

•T-301 - Suitable for mounting housed or unhoused cameras, T-305/307 - Only accept unhoused cameras for installation

Maximum load:	10 kg	
Length:	T-301:	260 mm + 150 mm
	T-305:	Min.275 mm/Max.405 mm
	T-307:	160 mm
Mass:	T-301/305:	0.7 kg
	T-307:	0.6 kg

T-301



T-305

T-307

SURVEILLANCE PRODUCTS

Lenses for 1/3-inch CS-mount camera

1) Auto-iris Type

(DC servo type/ Non-EE amplifier type/ Non-ALC type)

Models	VCL-4V8WEA	VCL-S02WEAP
Mount	CS	CS
Focal length	3.5 to 8.0 mm	2.8 mm
Iris control	Auto	Auto
Maximum aperture ratio	1 : 1.4	1 : 1.3
Minimum object distance	0.3 m	0.2 m
Filter size	—	M30.5 × 0.5 mm
Mass	72 g (3 oz)	41 g (1.4 oz)
Dimensions (dia. × H × L)	ø35.0 × 54.0 × 46.0 mm ($1^{7}/_{16} \times 2^{1}/_{4} \times 1^{13}/_{16}$ inches)	ø32.0 × 39.8 × 33.0 mm ($1^{5}/_{16} \times 1^{5}/_{8} \times 1^{5}/_{16}$ inches)
Cable length	100 mm (4 inches)	310 mm ($12^{1}/_{4}$ inch)

Lenses for 1/2-inch C-mount cameras

1) Auto-iris Type

(Video servo type)

Models	VCL-S03XEA	VCL-S06XEA	VCL-S12XEA
Mount	C	C	C
Focal length	3.6 mm	6.0 mm	12 mm
Iris control	Auto	Auto	Auto
Maximum aperture ratio	1 : 1.6	1 : 1.2	1 : 1.2
Filter size	—	M43 × 0.75 mm	M43 × 0.75 mm
Mass	88 g (3.1 oz)	128 g (4.5 oz)	126 g (4.4 oz)
Dimensions	ø45(dia.) × 32.9(L) mm ($1^{13}/_{16} \times 1^{5}/_{16}$ inches)	ø45.5(dia.) × 48.5(L) mm ($1^{13}/_{16} \times 1^{15}/_{16}$ inches)	ø45.5(dia.) × 48.5(L) mm ($1^{13}/_{16} \times 1^{15}/_{16}$ inches)
Supply voltage	DC 8 to 16V	DC 8 to 16V	DC 8 to 16V

2) Manual-iris Type

Models	VCL-S03XM	VCL-S06XM	VCL-S12XM
Mount	C	C	C
Focal length	3.6 mm	6.0 mm	12 mm
Iris control	Manual	Manual	Manual
Maximum aperture ratio	1 : 1.6	1 : 1.2	1 : 1.2
Filter size	M35.5 × 0.5 mm	M35.5 × 0.5 mm	M35.5 × 0.5 mm
Mass	66 g (2.3 oz)	74 g (2.6 oz)	60 g (2.1 oz)
Dimensions	ø38(dia.) × 28.6(L) mm ($1^{1}/_{2} \times 1^{3}/_{16}$ inches)	ø38(dia.) × 36.4(L) mm ($1^{1}/_{2} \times 1^{7}/_{16}$ inches)	ø38(dia.) × 30.8(L) mm ($1^{1}/_{2} \times 1^{1}/_{4}$ inches)

Aspherical auto-iris lens for 1/2-inch CS-mount cameras

(DC servo type)

Model	VCL-3ADXEA
Mount	CS
Focal length	3.8 mm
Iris control	Auto
Maximum aperture ratio	1 : 0.8
Minimum object distance	0.15m
Filter size	M43 × 0.75 mm
Mass	150 g (5.3 oz)
Dimensions (dia. × H × L)	ø45.0 × 56.8 × 52.5 mm ($1^{13}/_{16} \times 2^{1}/_{4} \times 2^{1}/_{8}$ inches)
Cable length	90 mm ($3\ ^{5}/_{8}$ inch)

SURVEILLANCE PRODUCTS

9" SSM-9040P

Colour monitor

•PAL standard •Trinitron colour monitor especially designed for surveillance applications •Adoption of beam current feedback circuit for high black level stability •Automatic 75 Ω termination facility •Front controls: Power, Brightness, Chroma, Contrast •EIA standard 19-inch rack mountable (with optional MB-507 mounting bracket) •Metal cabinet for high immunity to external electrical and magnetic interference

Supplied accessory: Operating instruction manual
Optional accessories: Rack mounting bracket MB-507
Blanking panel MB-509

Specifications

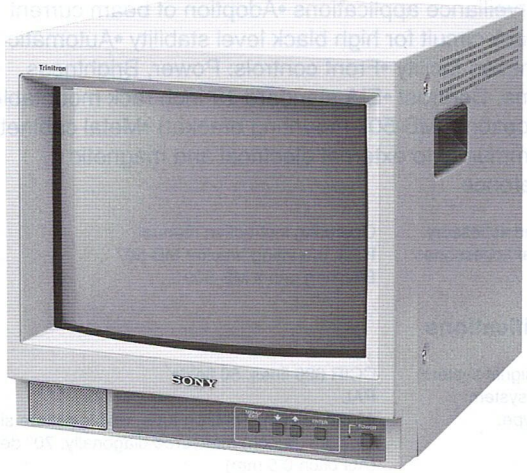
Video signal system:	CCIR 625 lines, 50 fields
Colour system:	PAL
CRT Type:	22 cm (9-inch) Trinitron tube, visible picture size 19.7 cm (8-inch) measured diagonally, 70° deflection (AG pitch 0.5 mm)
Resolution:	250 TV lines at centre
Frequency response:	6.0 MHz ($^{+1.5dB}_{-3.0dB}$)
Aperture correction:	–4.0 dB to +6.0 dB (at 3.0 MHz)
Sync system:	AFC time constant 1.0 ms
Normal scan:	6 % overscan
H-linearity:	Less than 7.0 % (Typical)
V-linearity:	Less than 7.0 % (Typical)
Convergence:	Central: 0.4 mm (Typical) Peripheral: 0.5 mm (Typical)
Raster size stability:	H: 1.0 % V: 1.5 %
HV-regulation:	3.0 % (Cut off to High light)
Colour temperature:	6500 K
Operating temperature:	0 to 35 °C (32 to 95 °F)
Storage temperature:	–10 to 40 °C (14 to 104 °F)
Humidity:	0 to 90 %
Power requirements:	AC 100 to 240 V, 50/60 Hz
Power consumption:	39 W
Video input:	BNC, 1 Vp-p, sync negative
Video output:	Loop-through BNC, automatic 75 Ω termination*
Dimensions:	217 (W) × 217 (H) × 352.5 (D) mm ($8^5/_8 \times 8^5/_8 \times 14$ inches)
Mass:	Approx. 7.8 kg (17 lb 3 oz)

*75 Ω termination is automatically set to OFF when connection is made to the OUT connector.

14" SSM-14N5E (PAL/NTSC/SECAM/NTSC4.43)

Colour monitor

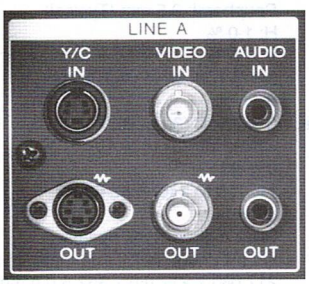
•Trinitron colour monitor especially designed for surveillance applications •High resolution of 500 TV lines •Adoption of beam current feedback circuit for stability in the colour balance •Accepts composite video and Y/C signals •Automatic 75 Ω termination facility •On-screen menu for adjustment/operation •Built-in speaker •EIA standard rack mountable (with optional MB-502B and SLR-102) •Metal cabinet for high immunity to external electrical and magnetic interference



Optional accessories: Rack mounting bracket kit MB-502B
Slide rail kit (used with the MB-502B) SLR-102

Specifications

Video signal system:	CCIR 625 lines, 50 fields/EIA 525 lines, 60 fields (switching of CCIR to EIA or vice versa is automatically done)
Colour system:	PAL/NTSC/SECAM/NTSC4.43*1
Picture tube:	37.1 cm (14-inch), HR Trinitron tube, visible picture size 33.2 cm (min.) (13-inch) measured diagonally, 90° deflection, EBU phosphors
Horizontal resolution:	500 TV lines at centre
Audio power output:	Monaural, 0.8 W with built-in speaker
Power requirements:	AC 100 to 240 V, 50/60 Hz
Power consumption:	80 W
Dimensions:	346 (W) × 340 (H) × 414 (D) mm ($13^5/_8 \times 13^3/_8 \times 16^5/_{16}$ inches)
Mass:	15 kg (33 lb 1oz)
VIDEO	
LINE*2	Loop-through BNC 1.0 Vp-p, sync negative, Automatic 75 Ω termination*3 Loop-through Mini DIN 4-pin Y (luminance): 1.0 Vp-p, sync negative, Automatic 75 Ω termination*3 C (chrominance): PAL: 0.3 Vp-p, Automatic 75 Ω termination*3 NTSC: 0.286 Vp-p, Automatic 75 Ω termination*3
AUDIO	
LINE	Loop-through Phono –5 dBu, high impedance



SURVEILLANCE PRODUCTS

*1 The NTSC4.43 system refers to an NTSC colour system in which the subcarrier frequency is modified to 4.43 MHz.
*2 The Y/C input has priority over the composite video input.
*3 75 Ω termination is automatically set to OFF when connection is made to the OUT connector.

20" SSM-20N5E (PAL/NTSC/SECAM/NTSC4.43)

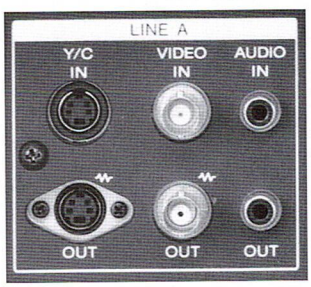
Colour monitor

•Trinitron colour monitor especially designed for surveillance applications •High resolution of 500 TV lines •Adoption of beam current feedback circuit for stability in the colour balance •Accepts composite video and Y/C signals •Automatic 75 Ω termination facility •On-screen menu for adjustment/operation •Built-in speaker •EIA standard rack mountable (with optional SLR-103A) •Metal cabinet for high immunity to external electrical and magnetic interference

Optional accessory: Slide rail kit SLR-103A

Specifications

Video signal system:	CCIR 625 lines, 50 fields/EIA 525 lines, 60 fields (switching of CCIR to EIA or vice versa is automatically done)
Colour system:	PAL/NTSC/SECAM/NTSC4.43*1
Picture tube:	53 cm (20-inch), HR Trinitron tube, visible picture size 48.0 cm (min.) (19-inch) measured diagonally, 90° deflection, EBU phosphors
Horizontal resolution:	500 TV lines at centre
Audio power output:	Monaural, 0.8 W with built-in speaker
Power requirements:	AC 100 to 240 V, 50/60 Hz
Power consumption:	105 W
Dimensions:	449 (W) x 441 (H) x 502 (D) mm ($17^{11}/_{16}$ x $17^{3}/_{8}$ x $19^{3}/_{4}$ inches)
Mass:	28 kg (61 lb 11 oz)
VIDEO	
LINE*2	Loop-through BNC 1.0 Vp-p, sync negative, Automatic 75 Ω termination*3 Loop-through Mini DIN 4-pin Y (luminance): 1.0 Vp-p, sync negative, Automatic 75 Ω termination*3 C (chrominance): PAL: 0.3 Vp-p, Automatic 75 Ω termination*3 NTSC: 0.286 Vp-p, Automatic 75 Ω termination*3
AUDIO	
LINE	Loop-through Phono –5 dBu, high impedance



SURVEILLANCE PRODUCTS

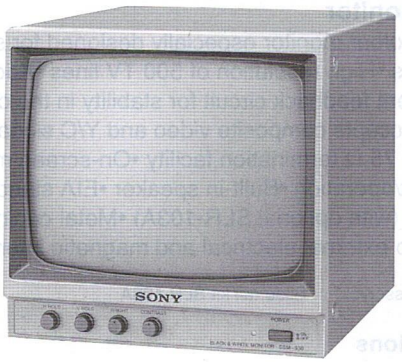
*1 The NTSC4.43 system refers to an NTSC colour system in which the subcarrier frequency is modified to 4.43 MHz.
*2 The Y/C input has priority over the composite video input.
*3 75 Ω termination is automatically set to OFF when connection is made to the OUT connector.

9" SSM-930CE

Monochrome monitor

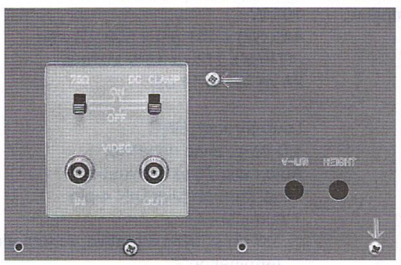
•Especially designed for surveillance applications •CCIR standard •9-inch CRT size •Excellent picture quality with more than 750 TV lines horizontal resolution •Loop-through video input with switchable 75 Ω termination •DC clamp switch provides a stable reference for the black level •19-inch EIA standard rack mountable for dual monitor configuration •Front controls: Power H-hold, V-hold, contrast and brightness •High immunity to external electrical and magnetic interference

Supplied accessory: Operating instruction manual



Specifications

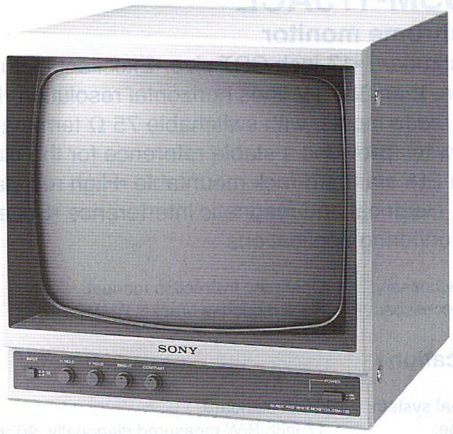
Video signal system:	CCIR standard
Picture tube:	9-inch B/W measured diagonally, 90° deflection
Video input:	Impedance 75 Ω/high switchable Level 0.5 to 2.0 Vp-p, sync negative, BNC-type
Video output:	Impedance more than 10 kΩ, loop-through, BNC-type
Horizontal resolution:	More than 750 TV lines (at centre)
Power requirements:	AC 220 V, 50/60 Hz
Power consumption:	30 W
Operating temperature:	0 to 40 °C (32 to 104 °F)
Storage temperature:	–10 to 65 °C (14 to 149 °F)
Dimensions:	220 (W) × 219 (H) × 252.8 (D) mm ($8^3/_4 \times 8^5/_8 \times 10$ inches)
Mass:	5.8 kg (13 lb)



12" SSM-125CE

Monochrome monitor

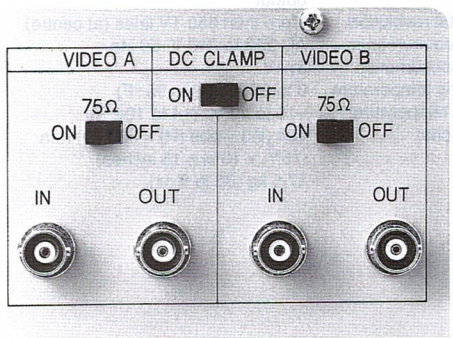
•Especially designed for surveillance applications •CCIR standard •12-inch CRT size •Excellent picture quality with more than 750 TV lines horizontal resolution •Dual loop-through video inputs, with switchable 75 Ω termination •Front controls: Power, INPUT select, H-hold, V-hold, contrast and brightness •High immunity to external electrical and magnetic interference



Supplied accessory: Operating instruction manual

Specifications

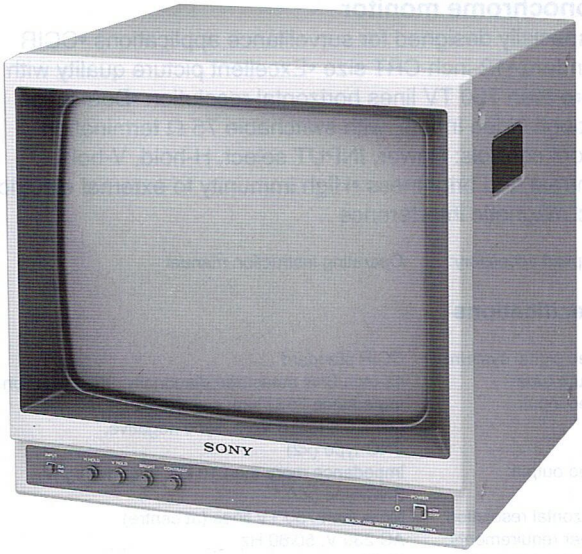
Video signal system:	CCIR standard
Picture tube:	12-inch B/W measured diagonally, 90° deflection
Video input:	Impedance 75 Ω/high switchable Level 0.5 to 2.0 Vp-p, sync negative, BNC-type (×2)
Video output:	Impedance more than 10 kΩ, loop-through, BNC-type (×2)
Horizontal resolution:	More than 750 TV lines (at centre)
Power requirements:	AC 230 V, 50/60 Hz
Power consumption	30 W
Operating temperature:	0 to 35 °C (32 to 95 °F)
Storage temperature:	–10 to 40 °C (14 to 104 °F)
Dimensions:	296 (W) × 303 (H) × 300.5 (D) mm (11¾ × 12 × 11⅞ inches)
Mass:	9.2 kg (20 lb 5 oz)



17" SSM-175ACE

Monochrome monitor

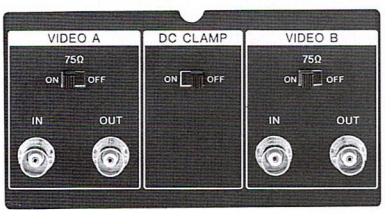
•CCIR standard •17-inch CRT size •Excellent picture quality with more than 850 TV lines horizontal resolution •Dual loop-through video inputs, with switchable 75 Ω termination •DC clamp switch provides a stable reference for the black level •19-inch EIA standard rack mountable •High resistance to external electrical and magnetic interference •Suitable for many monitoring applications



Supplied accessory:	Operating instruction manual
Optional accessory:	Rack mounting bracket RMM-171

Specifications

Video signal system:	CCIR standard
Picture tube:	17-inch B/W measured diagonally, 90° deflection
Video input:	BNC (×2), level 0.5 to 2.0 Vp-p, sync negative, 75 Ω/high impedance switchable with loop-through output
Horizontal resolution	More than 850 TV lines (at centre)
Power requirements:	AC 220 to 240 V, 50 Hz
Power consumption:	37 W
Operating temperature:	0 to 35 °C (32 to 95 °F)
Storage temperature:	–10 to 40 °C (14 to 104 °F)
Dimensions:	424 (W) × 409 (H) × 380 (D) mm ($16^{3}/_{4} \times 16^{1}/_{8} \times 15$ inches)
Mass:	17.5 kg (38 lb 9 oz)

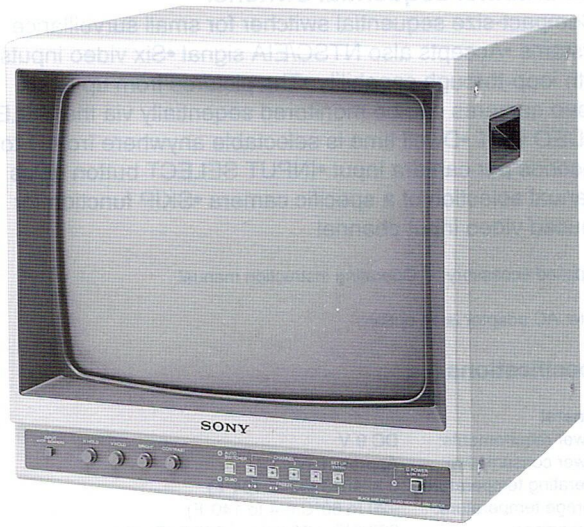


SURVEILLANCE PRODUCTS

17" SSM-Q177CE

Monochrome quad monitor

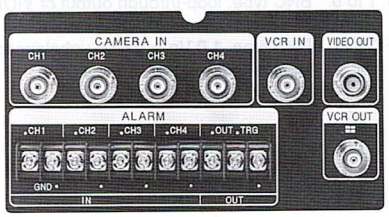
•CCIR standard •Quad Screen Display permits up to four compressed, split pictures to be displayed simultaneously and recorded on a single VCR •High quality compressed images with 8-bit signal processing for clearer pictures •Sequential Switcher Function provides automatic switching between up to four cameras, with a selectable dwell time; SKIP channel also selectable •Newly developed flyback transformer provides the high voltage stability required to minimise picture zooming •Freeze Picture Function can freeze each picture in quad mode, as well as freeze a VCR playback picture •Alarm IN/OUT with audible alarm and flashing LED •Video Loss Detection with on-screen notification •On-screen menus display Date, Time and Camera ID •19-inch EIA standard rack mountable



Supplied accessory: Operating instructions
Optional accessory: Rack mounting bracket RMM-171

Specifications:

Video signal system:	CCIR standard
Picture tube:	17-inch CRT, measured diagonally, 90° deflection
Resolution:	More than 850 TV lines (full screen)
Camera input/VCR input:	Composite: 1.0 Vp-p, sync negative, 75 Ω
Video output/VCR output:	Composite: 1.0 Vp-p, sync negative, 75 Ω
Power requirements:	AC 230 V, 50/60 Hz
Power consumption:	Approx. 45 W
Operating temperature:	0 to 35 °C (32 to 95 °F)
Storage temperature:	-10 to 40 °C (14 to 104 °F)
Operating humidity:	0 to 90 % (no condensation)
Storage humidity:	0 to 90 % (no condensation)
Dimensions:	424 (W) × 409 (H) × 380 (D) mm (16 6/8 × 16 1/8 × 15 inches)
Mass:	18.8 kg (41 lb 6 oz)
Regulation compliance:	EN 60 065 (TÜV), CE (EMC, LVD), C-Tick Mark



SURVEILLANCE PRODUCTS

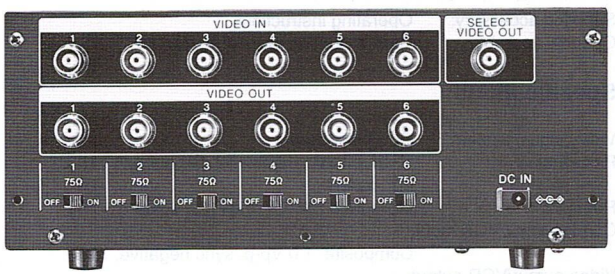
YS-S6

Six-channel sequential switcher

•Compact-size sequential switcher for small surveillance systems •Accepts also NTSC/EIA signal •Six video inputs with loop-through capability •The pictures from up to six video cameras can be monitored seqentially via the SELECT VIDEO OUT •Dwell time is selectable anywhere from 1 to 30 seconds per camera input •INPUT SELECT button gives manual selection of a specific camera •SKIP function for unused video input channel

Supplied accessory: Operating instruction manual

Note: AC adaptor is an option.



Specifications

General

Power requirements:	DC 9 V
Power consumption:	Approx. 1 W
Operating temperature:	0 to 40°C (32 to 104°F)
Storage temperature:	–20 to 60°C (–4 to 140°F)
Dimensions:	220 (W) × 96 (H) × × 265.5 (D) mm (8 3/4 × 3 7/8 × 10 1/2 inches)
Mass:	Approx. 2.1 kg (4 lb 10 oz)

Inputs

VIDEO INPUT 1 to 6:	BNC type, 1.0 Vp-p, 75 Ω, unbalanced, sync negative
DC IN:	DC jack type, DC 9 V (DC 7 V to 15 V is permissible)

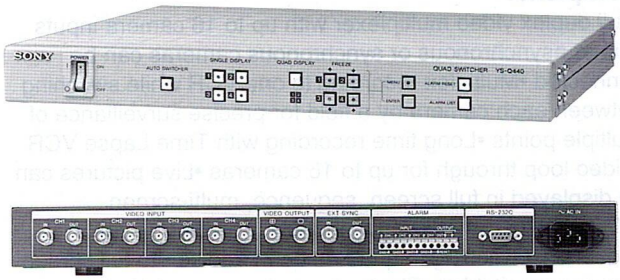
Outputs

VIDEO OUTPUT 1 to 6:	BNC type, loop-through output of VIDEO INPUT, 75 Ω termination ON/OFF switchable
SELECT VIDEO OUT:	BNC type, 1.0 Vp-p, 75 Ω, unbalanced, sync negative

YS-Q440P

Quad switcher

•High performance Quad Image Splitter with an auto sequential switcher • Up to four compressed, split pictures can be simultaneously displayed on a single monitor and recorded on a single VCR •Automatic switching between up to four cameras can also be performed on a monitor and the switching interval can be selected in one second intervals from 1 to 30 seconds •Either asynchronous or synchronous, colour or black & white cameras can be connected •8-bit signal processing and four field memories provide high picture quality compressed images •Up to eight characters can be superimposed onto each of the four compressed pictures •The built-in date and time generator allows time and date information to be displayed •Freeze picture function (Quad mode only) •Alarm function •Video loss detection •RS-232 Remeto control port



Supplied accessories: Rack mounting bracket (for EIA standard rack)
AC power cord
Operating instruction manual

Specifications

General

Video signal system:	CCIR/PAL standard
Power requirements:	AC 220 to 240 V, 50 Hz
Power consumption:	Less than 10 W
Operating temperature:	0 to 40°C (32 to 104°F)
Storage temperature:	-20 to 60°C (-4 to 140°F)
Dimensions:	430(W) × 44(H) × 350(D) mm (17 × 1 3/4 × 12 7/8 inches) (without projecting parts and controls)
Mass:	Approx. 3.8 kg (8 lb 4 oz)

Video input/output

Video input:	VIDEO INPUT CH1 to CH4, 1.0 Vp-p, 75 Ω automatic termination Input (BNC type) x 4 Loop through output (BNC type) x 4
Video output:	VIDEO OUT (BNC type) x 1 Quad-picture image signal 1.0 Vp-p, 75 Ω VIDEO OUT (BNC type) x 1 Quad, Sequential, Full screen signal (selectable) 1.0 Vp-p, 75 Ω

Sync

External SYNC IN	1.0 Vp-p, 75 Ω VBS or VS signal
External SYNC OUT	1.0 Vp-p, 75 Ω VBS or VS signal

Control

Remote connector:	REMOTE (D-sub 9 pin RS-232C port)
Alarm input:	ALARM IN terminal x 4 CMOS "L" level or MAKE
Alarm output:	ALARM OUT terminal x 1 Relay Out, switching DC 30 V at up to 2 A RESET OUT terminal x 1 Open Collector Output up to 12 V 20 mA

Other

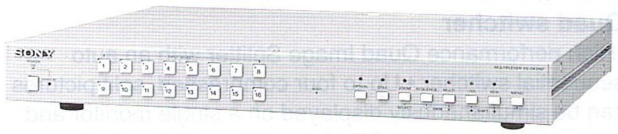
Alarm hold duration:	1 to 30 s (one second increments) 30 to 180 s (ten second increments) Manual
Auto sequential duration:	1 to 30 s (one second increments)
Picture tone:	8-bit video (256 gradations)

SURVEILLANCE PRODUCTS

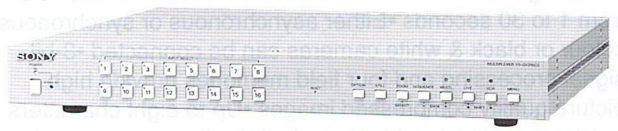
YS-DX316P/DX216CE

Multiplexer

•Full duplex video multiplexer with up to 16 camera inputs •Either asynchronous or synchronous cameras can be connected •Multiplex recording to one VCR while switching between each camera by a field for precise surveillance of multiple points •Long time recording with Time Lapse VCR •Video loop through for up to 16 cameras •Live pictures can be displayed in full screen, sequence, multi-screen (4/7/10/13/16) while simultaneously recording •Auto sequential switching in quad mode in addition to full screen sequence switching •Playback can be reviewed in full screen, sequence, and multi-screen (4/7/10/13/16) •Recorded images can be played back in the bottom right screen of the 13 or 16-picture display simultaneously with live images •Live images can be displayed in the bottom right screen of the 13 or 16-picture display simultaneously with recorded images •MONITOR 2 can be used for spot monitoring •Freeze picture function in both live and playback mode •Electronic zoom (x2) function in both live and play back mode •Built in time/date and camera title generator •Easy on screen setup •16 alarm inputs, each corresponding to a camera input •Programmable freeze, zoom and buzzer functions in 16-picture split mode for alarm inputs •Alarm monitor function automatically provides independent monitoring of channels in which alarms occur on MONITOR 2 •Programmable alarm recording time mode •Alarm memory function can store up to 100 alarm events (camera number, date and time) •Video loss detection function •Remote control capability via a D-sub 25-pin •Compact 1U height unit and rack mount capability



YS-DX316P



YS-DX216CE

YS-DX316P

YS-DX216CE

Supplied accessories: Rack mount kit (for EIA standard rack) (1)
D-sub 25-pin plug components (1)
Operating manual (1)

Specifications

General

Video Signal System:	DX316P: PAL standard, DX216CE: CCIR standard
Power requirements:	AC 120 V, 50 Hz
Power consumption:	DX316P: 22 W DX216CE: 16W
Operating temperature:	0 to 45° C (32 to 113° F)
Mass:	4.2 kg (9 lb 4 oz)

Video inputs

Camera input 1 to 16:	DX316P: BNC type, VS or VBS, 1.0 Vp-p, 75 Ω DX216CE: BNC type, VS, 1.0 Vp-p, 75 Ω
VCR input:	DX316P: BNC type, VS or VBS, 1.0 Vp-p, 75 Ω, Auto termination type DX216CE: BNC type, VS, 1.0 Vp-p, 75 W
S-VHS Y/C inputs:	DX316P only: Din Connector, Y: 1.0 Vp-p, 75 Ω C: 0.286 Vp-p, 75 Ω

Video outputs

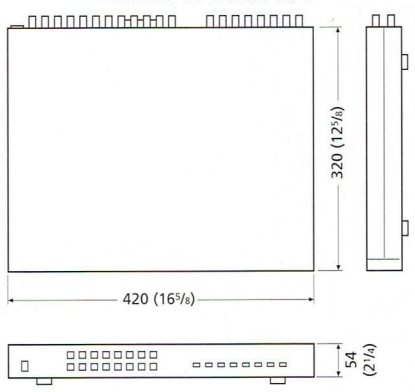
Camera output 1 to 16:	DX316P: BNC type, VS or VBS, 1.0 Vp-p, 75 Ω DX216CE: BNC type, VS, 1.0 Vp-p, 75 Ω
Monitor 1 output:	DX316P: BNC type x 1, VS or VBS DX216CE: BNC type x 1, VS
Monitor 2 output:	DX316P: BNC type x 1, VS or VBS DX216CE: BNC type x 1, VS
VCR output:	DX316P: BNC type, VS or VBS, 1.0 Vp-p, 75 Ω DX216CE: BNC type, VS, 1.0 Vp-p, 75 Ω
S-VHS Y/C output:	DX316P only: Din Connector, Y: 1.0 Vp-p, 75 Ω C: 0.286 Vp-p, 75 Ω

Other

Synchronization:	Asynchronous individual inputs
Alarm output:	DC 5 V 5.7 kW
Alarm duration:	10, 20, 30, 40, 50, 60, CC* s
Switch input from VCR:	Low active 100 kW pull-up
Control terminal:	D-sub 25 pin: Alarm input: contact close (x 16) Remote control input
Sequence time:	0.5 to 30 s (0.5 s increments)
On-screen display:	8 character title, date/time
Buzzer:	ON/OFF

* Stays in alarm mode for as long as alarm input remains active

Dimensions



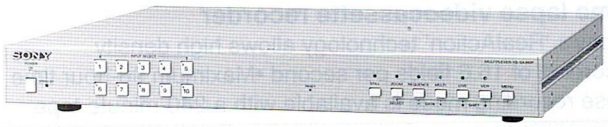
Unit: mm (inch)

SURVEILLANCE PRODUCTS

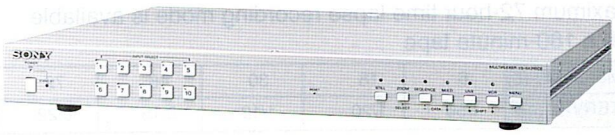
YS-SX310P/SX210CE

•Simplex video multiplexer with up to 10 camera inputs •Either asynchronous or synchronous cameras can be connected •Multiplex recording to one VCR while switching between each camera by a field for precise surveillance of multiple points •Long time recording with Time Lapse VCR •Video loop through for up to 10 cameras •Live pictures can be displayed in full screen or in full screen or sequence while simultaneously recording •Multi-screen (4/7/10) live images can be displayed* •Playback can be reviewed in full screen, sequence, and multi-screen (4/7/10) •Freeze picture function in live and play back mode •Electronic zoom (x2) function in live and play back mode •Built in time/date and camera title generator •Easy on screen setup •10 alarm inputs, each corresponding to a camera input •Alarm monitor function automatically provides independent monitoring of channels on which alarms occur •Programmable alarm recording time mode •Alarm memory function can store up to 100 alarm events (camera number, date and time) •Video loss detection function •Remote control capability via a D-sub 25-pin •Compact 1U height unit and rack mount capability

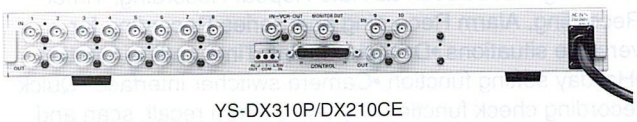
* This feature is not applicable when unit recording with a VCR



YS-DX310P



YS-DX210CE



YS-DX310P/DX210CE

Supplied accessory: Rack mount kit (for EIA standard rack) (1)
D-sub 25-pin plug components (1)
Operating manual (1)

Specifications

General

Video Signal System:	SX310P: PAL standard, SX210CE: CCIR standard
Power requirements:	AC 220-240 V, 50 Hz
Power consumption:	SX310P: 15 W SX210CE: 12 W
Operating temperature:	0 to 45° C (32 to 113° F)
Mass:	4.2 kg (9 lb 4 oz)

Video inputs

Camera input 1 to 10:	SX310P: BNC type, VS or VBS, 1.0 Vp-p, 75 Ω SX210CE: BNC type, VS, 1.0 Vp-p, 75 Ω
VCR input:	SX310P: BNC type, VS or VBS, 1.0 Vp-p, 75 Ω, Auto termination type SX210CE: BNC type, VS, 1.0 Vp-p, 75 W

Video outputs

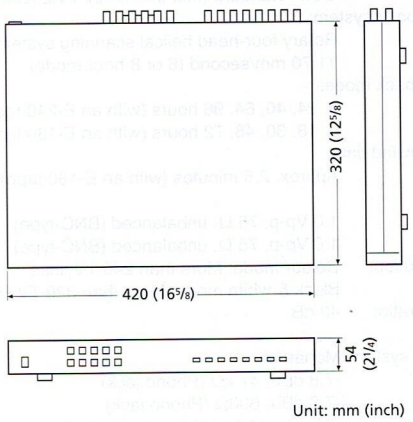
Camera output 1 to 10:	SX310P: BNC type, VS or VBS, 1.0 Vp-p, 75 Ω SX210CE: BNC type, VS, 1.0 Vp-p, 75 Ω
Monitor output:	SX310P: BNC type x 1, VS or VBS SX210CE: BNC type x 1, VS
VCR output:	SX310P: BNC type, VS or VBS, 1.0 Vp-p, 75 Ω SX210CE: BNC type, VS, 1.0 Vp-p, 75 Ω

Other

Synchronization:	Asynchronous individual inputs
Alarm output:	DC 5 V 5.7 kW
Alarm duration:	10, 20, 30, 40, 50, 60, CC* s
Switch input from VCR:	Low active 100 kW pull-up
Control terminal:	D-sub 25 pin: Alarm input: contact close (x 10) Remote control input
Sequence time:	0.5 to 30 s (0.5 s increments)
On-screen display:	8 character title, date/time
Buzzer:	ON/OFF

* Stays in alarm mode for as long as alarm input remains active

Dimensions



Unit: mm (inch)

SURVEILLANCE PRODUCTS

SVT-L230P

Time lapse videocassette recorder

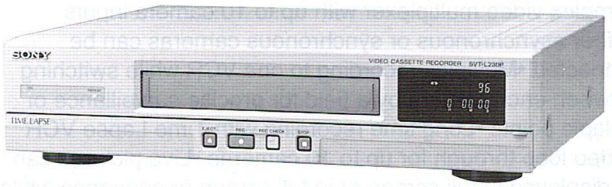
•Sony's 'RealAction' technology allows high density recording of 16.6 fields per second •Maximum 96-hour time lapse recording mode is available with a 240-minute tape

TIME MODE (h)	8	24	40	64	96
INTERVAL (s)	1/50	1/20	1/12	0.15	0.22

•Maximum 72-hour time lapse recording mode is available with a 180-minute tape

TIME MODE (h)	6	18	30	48	72
INTERVAL (s)	1/50	1/20	1/12	0.15	0.22

•Adaptive Picture Control (APC) delivers optimum picture quality to the recording image •Audio recording and playback are possible in 8, 24, 40-hour modes (E-240) and in 6, 18, 30-hour modes (E-180) •Built-in time and date generator allows time and date information to be displayed along with the Alarm count and Recording/Playback speed •Various recording modes such as Auto Repeat Recording, Timer Recording, Alarm Recording and Series Recording for versatile situations •Daylight Saving Time setting function •Holiday setting function •Camera switcher interface •Quick recording check function •By using alarm recall, scan and search functions, pictures recorded during alarm mode can be easily checked •Field-by-field picture playback capability •External timer input capability •Automatic clock adjusting is possible when several VTRs are used •On-screen display permits easy-to-follow operation •Auto head cleaning function •Tape before-end / Tape-end signal output capabilities •Warning signal output capability •Buzzer function •Power-failure protection for up to 30 days •Security lock function for avoiding accidental operation errors •Loop-through capability enables video and audio to be output through to the monitor automatically •Clog detection function •Remote control capability of basic operational functions through ø3.5 mm mini jack •External control capability via an optional RS-232C interface



Supplied Accessories: AC power cord
Operation manual

Optional Accessories: SVT-RM10 Remote control unit
SVT-RS1A Computer Interface Board
TLV parts kit TPK-888P

Specifications

General

Mass: 5.8 kg (12 lb 9 oz)
Dimensions: 420 (W) × 100 (H) × 340 (D) mm (16 5/8 × 4 × 13 1/2 inches)
Power requirements: AC 220 to 240 V, 50 Hz
Power consumption: 17 W
Operating temperature: 5 to 40 °C (41 to 104 °F)
Operating humidity: Less than 80%

System

Video signal: CCIR standard (monochrome)/ PAL (colour)
Recording playback system: Rotary four-head helical scanning system
Tape speed: 11.70 mm/second (6 or 8-hour mode)
Recording/Playback mode: 8, 24, 40, 64, 96 hours (with an E-240 tape)
6, 18, 30, 48, 72 hours (with an E-180 tape)
Fast forward/Rewind time: Approx. 2.5 minutes (with an E-180 tape)

Video

Input: 1.0 Vp-p, 75 Ω, unbalanced (BNC-type)
Output: 1.0 Vp-p, 75 Ω, unbalanced (BNC-type)
Horizontal resolution: Colour mode: More than 240 TV lines
Black & white mode: More than 320 TV lines
Signal-to-noise ratio: 42 dB

Audio

Audio recording system: Monaural
Input: -7.8 dBu, 47 kΩ (Phono jack)
Output: -7.8 dBu, 600Ω (Phono jack)
Microphone input: -60 dBu, 600 Ω (3.5 mm mini jack)
Distortion: Less than 4%
Audio signal-to-noise ratio: 40 dB

Others

Alarm input: Low level
Alarm output: +5 V, 5.7 kΩ (Low active)
Switch output: +5 V, 5.7 kΩ
Tape end output: +5 V, 5.7 kΩ (Low active)
Warning output: +5 V, 5.7 kΩ (Low active)
Timer output: +5 V, 5.7 kΩ (High active)
External timer input: Low level
Clock set output: +5 V, 5.7 kΩ (Low active)
Clock set input: Low level
Series output: +5 V, 5.7 kΩ (Low active)
Remote control input: 3.5 mm mini jack (1)

SVT-5050P

Colour time lapse videocassette recorder

•12 different time lapse recording/playback modes are available in addition to the standard mode (3 hour time mode) with a normal 180-minute tape

TIME MODE (h)	3	12	24	48	72	96	120	168	240	360	480	720	960
INTERVAL (s)	1/50	0.1	0.18	0.34	0.5	0.66	0.82	1.14	1.62	2.42	3.22	4.82	6.42

Note: In time lapse modes, it is possible to additionally record three hours longer than the original modes.

•Adaptive Picture Control (APC) delivers optimum picture quality to the recording image •A tape recorded in the 3-hour mode can be played back by any VHS VCR •Audio recording and playback are possible in 3,12 and 24-hour modes •Built-in time and date generator allows a required scene to be easily searched by presetting the desired time and date •Multiple recording modes such as Auto Repeat Recording, Timer Recording, Alarm Recording, One-shot Recording and Series Recording for versatile situations •Holiday setting function •Daylight Saving Time setting function •Quick recording check function •By using alarm recall/scan/search functions, pictures recorded during alarm mode can also be easily checked •Field-by-field picture playback capability •External timer input capability •Automatic clock adjusting possible when several VCRs connected •On-screen display permits easy-to-follow operation •Auto head cleaning function •Tape before-end signal output/Tape-end output capability •Warning signal output capability •Buzzer setting function •Power-failure protection for up to 30 days •Security lock function for avoiding accidental operation errors •External control capability via an optional RS-232C interface •Remote control capability of basic operational functions through ø3.5mm mini jack

Supplied accessories: AC power cord
Operating instruction manual

Optional accessories: RS-232C interface board SVT-RS1A
Remote control unit SVT-RM10
TLV parts kit TPK-887P

Specifications

General

Power requirements:	AC 220 to 240 V, 50/60 Hz
Power consumption:	18 W
Operating temperature:	5 to 40°C (41 to 104°F)
Operating humidity:	Less than 80%
Dimensions:	420 (W) × 100 (H) × 349 (D) mm ($16^5/_8 \times 4 \times 13^3/_4$ inches)
Mass:	Approx. 5.5 kg (12 lb 2 oz)
Tape speed:	23.39 mm/sec (3-hour mode)
Recording/playback time:	3, 12, 24, 48, 72, 96, 120, 168, 240, 360, 480, 720 and 960 hours (with an E-180 tape) (One shot mode is also available)
Alarm recording speed:	3, 12-hour mode, NC*1
Alarm recording duration:	20 s, 40 s, 1 m, 2 m, 3 m, 4 m, 5 m, CC*2
Fast forward/rewind time:	Approx. 4 minutes (with an E-180 tape)

Video

Recording system:	Rotary four-head helical scanning system Luminance signal: FM recording Colour signal: Low-pass band-pass transformation direct recording
Input:	1.0 Vp-p, 75 Ω, unbalanced (BNC type)
Output:	1.0 Vp-p, 75 Ω, unbalanced (BNC type)
Horizontal resolution:	Colour mode: More than 240 TV lines Black & White mode: More than 350 TV lines
Signal-to-noise ratio:	43 dB

Audio

Audio recording mode:	3, 12 and 24-hour mode
Input:	–7.8 dBu, 47 kΩ (phono jack)
Output:	–7.8 dBu, 600 Ω (phono jack)
Microphone input:	–60 dBu, 600 Ω (ø3.5 mm mini jack)

Others

Alarm input:	Low level
Alarm output:	+5 V, 5.7 kΩ (Low active)
Switch output:	+5 V, 5.7 kΩ (Low active)
Tape end output:	+5 V, 5.7 kΩ (Low active)
Warning output:	+5 V, 5.7 kΩ (Low active)
Timer output:	+12 V, 5.7 kΩ (high active)
External timer input:	Low level
Clock set output:	+5 V, 5.7 kΩ (Low active)
Clock set input:	Low level
Series output:	+5 V, 5.7 kΩ (Low active)
Series input:	Low level
One-shot input:	Low level
Alarm reset:	Low level
Control terminals:	ø3.5 mm mini jack Optional RS-232C interface (D-sub 9-pin)

Notes: *1 No change of recording speed
*2 Duration of alarm recording continues for as long as alarm input remains active.

SURVEILLANCE PRODUCTS

SVT-S3050P

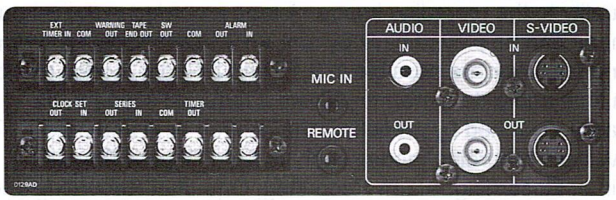
S-VHS Time Lapse Videocassette Recorder

•High horizontal resolution of 400 TV lines using S-VHS format •Excellent signal-to-noise ratio of 45 dB •7 different time lapse recording/playback modes are available in addition to the standard mode (3-hour time mode) with a normal 180-minute tape

TIME MODE (h)	3	12	24	48	72	96	120	168
INTERVAL (s)	1/50	0.1	0.18	0.34	0.5	0.66	0.82	1.14

Note : In time lapse mode, it is possible to additionally record three hours longer than original modes.

•Adaptive Picture Control (APC) delivers optimum picture quality to the recording image •A tape recorded in the 3-hour mode can be played back by any S-VHS or VHS VTR •Audio recording and playback are possible in 3, 12 and 24-hour modes •Built-in time and date generator allows time and date information to be displayed along with the Alarm count and Recording/Playback speed •Various recording modes such as Auto Repeat Recording, Timer Recording and Alarm Recording for versatile situations •Holiday setting function •Daylight Saving Time setting function •Quick recording check function •By using alarm recall and scan functions, pictures recorded during alarm mode can be easily checked •Field-by-field picture playback capability •External timer input capability •Automatic clock adjusting is possible when several VTRs are connected •On-screen display permits easy-to-follow operation •Auto head cleaning function •Tape before-end signal output/Tape-end output capability •Warning signal output capability •Buzzer setting function •Power-failure protection for up to 30 days •Security lock function for avoiding accidental operation errors •External control capability via an optional RS-232C interface •Remote control capability of basic operational functions through ø3.5 mm mini jack (optional Remote Control Unit SVT-RM10)



Supplied Accessories: AC power cord (1)
Operation manual (1)

Optional Accessory: RS-232C interface board SVT-RS1A
Remote control unit SVT-RM10
TLV parts kit TPK-885P

SURVEILLANCE PRODUCTS

Specifications

General

Tape format:	S-VHS or VHS
Power requirements:	AC 220 to 240 V, 50/60 Hz
Power consumption:	18 W
Operating temperature:	5°C to 40°C (41°F to 104°F)
Operating humidity:	Less than 80%
Dimensions:	420 (W) × 100 (H) × 340 (D) mm (16 5/8 × 4 × 13 1/2 inches)
Mass:	Approx. 5.8 kg (12 lb 9 oz)
Tape speed:	23.39 mm/sec (3-hour mode)
Recording/playback time:	3, 12, 24, 48, 72, 96, 120 and 168 hours (with an SE/E-180 tape)
Alarm recording speed:	3, 12-hour mode, NC*1
Alarm recording duration:	20 s, 1 m, CC*2
Fast forward/rewind time:	Approx. 4 minutes (with an SE/E-180 tape)

Video

Recording system:	Rotary four-head helical scanning system Luminance signal: FM recording Colour signal: Low-pass band-pass transformation direct recording
Input:	BNC: 1.0 Vp-p, 75 Ω, unbalanced S-VIDEO: Mini DIN 4-pin Y: 1.0 Vp-p, 75 Ω, sync negative C: 0.3 Vp-p, at burst level, 75 Ω
Output:	BNC : 1.0 Vp-p, 75 Ω, unbalanced S-VIDEO: Mini DIN 4-pin Y: 1.0 Vp-p, 75 Ω, sync negative C: 0.3 Vp-p, at burst level, 75 Ω
Horizontal resolution:	Colour mode : More than 400 TV lines (S-VHS) Black & White mode: More than 400 TV lines (S-VHS)
Signal-to-noise:	45 dB (S-VHS)

Audio

Audio recording mode:	3, 12 and 24-hour mode
Input:	–7.8 dBu, 47 kΩ (phono jack)
Output:	–7.8 dBu, 600 Ω (phono jack)
Microphone input:	–60 dBu, 600 Ω (ø3.5 mm mini jack)

Others

Alarm input:	Low level
Alarm output:	+5 V, 5.7 kΩ (Low active)
Switch output:	+5 V, 5.7 kΩ (Low active)
Tape end output:	+5 V, 5.7 kΩ (Low active)
Warning output:	+5 V, 5.7 kΩ (Low active)
Timer output:	+12 V, 5.7 kΩ (High active)
External timer input:	Low level
Clock set input:	Low level
Clock set output:	+5 V, 5.7 kΩ (Low active)
Series input:	Low level
Series output:	+5 V, 5.7 kΩ (Low active)
Control terminals:	ø3.5 mm mini jack Optional RS-232C interface (D-sub 9-pin)

*1 No change of recording speed
*2 Duration of alarm recording continues for as long as alarm input remains active.
0 dBu = 0.775 Vrms

SVT-1000P

Colour time lapse videocassette recorder

•4 different time lapse recording/playback modes are available in addition to the standard mode (3 hour time mode) with a normal 180-minute tape

TIME MODE (h)	3	12	24	48	72
INTERVAL (s)	1/50	0.1	0.18	0.34	0.5

Note: In time lapse modes, it is possible to additionally record three hours longer than the original modes.

•Adaptive Picture Control (APC) delivers optimum picture quality to the recording image •A tape recorded in the 3-hour mode can be played back by any VHS VCR •Audio recording and playback are possible in 3,12 and 24-hour modes •Built-in time and date generator allows time and date information to be displayed along with the Alarm count and Recording/Playback speed •Various recording modes such as Auto Repeat Recording, Timer Recording and Alarm Recording for versatile situations •By using alarm recall and scan functions, pictures recorded during alarm mode can be easily checked •Holiday setting function •Daylight Saving Time setting function •Quick Recording check function •Field-by-field picture playback capability •External timer input capability •On-screen display permits easy-to-follow operation •Auto head cleaning function •Tape before-end signal output/Tape-end output capability •Warning signal output capability •Buzzer setting function •Power-failure protection for up to 30 days •Security lock function for avoiding accidental operation errors •External control capability via an optional RS-232C interface •Remote control capability of basic operational functions through ø3.5mm mini jack

Supplied accessories: AC power cord
Operating instruction manual

Optional accessories: RS-232C interface board SVT-RS1A
Remote control unit SVT-RM10
TLV parts kit TPK-887P

Specifications

General

Power requirements:	AC 220 to 240 V, 50/60 Hz
Power consumption:	18 W
Operating temperature:	5 to 40°C (41 to 104°F)
Operating humidity:	Less than 80%
Dimensions:	420 (W) × 100 (H) × 349 (D) mm ($16^5/_8 \times 4 \times 13^3/_4$ inches)
Mass:	Approx. 5.5 kg (12 lb 2 oz)
Tape speed:	23.39 mm/sec (3-hour mode)
Recording/playback time:	3, 12, 24, 48 and 72 hours (with an E-180 tape)
Alarm recording speed:	3, 12-hour mode, NC*1
Alarm recording duration:	20 s, 1 m, CC*2
Fast forward/rewind time:	Approx. 4 minutes (with an E-180 tape)

Video

Recording system:	Rotary four-head helical scanning system Luminance signal: FM recording Colour signal: Low-pass band-pass transformation direct recording
Input:	1.0 Vp-p, 75 Ω, unbalanced, sync negative (BNC type)
Output:	1.0 Vp-p, 75 Ω, unbalanced, sync negative (BNC type)
Horizontal resolution:	Colour mode: More than 240 TV lines Black & White mode: More than 320 TV lines
Signal-to-noise ratio:	43 dB

Audio

Audio recording mode:	3, 12 and 24-hour mode
Input:	–7.8 dBu, 47 kΩ, unbalanced (phono jack)
Output:	–7.8 dBu, 600 Ω, unbalanced (phono jack)
Microphone input:	–60 dBu, 600 Ω (ø3.5mm mini jack)

Others

Alarm input:	Low level
Alarm output:	+5 V, 5.7 kΩ (Low active)
Switch output:	+5 V, 5.7 kΩ (Low active)
Tape end output:	+5 V, 5.7 kΩ (Low active)
Warning output:	+5 V, 5.7 kΩ (Low active)
External timer input:	Low level
Control terminals:	ø3.5 mm mini jack Optional RS-232C interface (D-sub 9-pin)

*1 No change of recording speed
*2 Duration of alarm recording continues for as long as alarm input remains active.

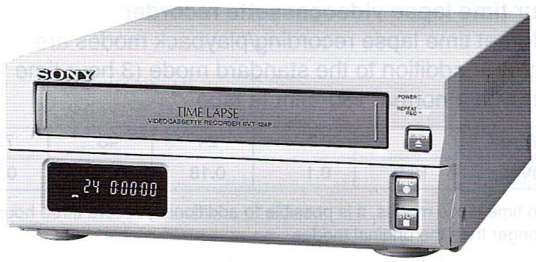
SVT-124P

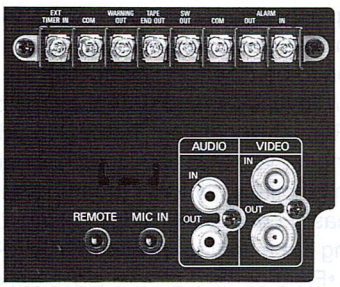
Colour Time Lapse Videocassette Recorder

•Two different time lapse recording/playback modes are available in addition to the standard mode (3-hour time mode) with a normal 180-minute tape

TIME MODE (h)	3	12	24
INTERVAL (s)	1/50	0.1	0.18

•Compact body with a 240 mm width •Adaptive Picture Control (APC) delivers optimum picture quality to the recording image •Audio recording and playback are possible in 3, 12 and 24-hour modes •Built-in time and date generator allows time and date information to be displayed along with the Alarm count and Recording/Playback speed •Various recording modes such as Auto Repeat Recording, Timer Recording and Alarm Recording for versatile situations •Holiday setting function •Daylight Saving Time setting function •Camera switcher interface •Quick recording check function •By using alarm recall and scan functions, pictures recorded during alarm mode can be easily checked •Field-by-field picture playback capability •External timer input capability •Automatic clock adjusting is possible when several VTRs are connected •On-screen display permits easy-to-follow operation •Auto head cleaning function •Tape before-end signal output / Tape-end output capability •Warning signal output capability •Buzzer setting function •Power-failure protection for up to 30 days •Security lock function for avoiding accidental operation errors •Clog detection function •Remote control capability of basic operational functions through ø3.5 mm mini jack (optional Remote Control Unit SVT-RM10)





Supplied Accessories: AC power cord (1)
Operation manual (1)
Optional Accessory: Remote control unit SVT-RM10
TLV parts kit TPK-953P

Specifications

General

Tape format:	VHS
Power requirements:	AC 220 to 240 V, 50/60 Hz
Power consumption:	18 W
Operating temperature:	5°C to 40°C (41°F to 104°F)
Operating humidity:	Less than 80%
Dimensions:	240 (W) × 96.5 (H) × 333 (D) mm (9 1/2 × 3 7/8 × 13 1/8 inches)
Mass:	Approx. 3.8 kg (8 lb 6 oz)
Tape speed:	23.39 mm/sec (3-hour mode)
Recording/playback time:	3, 12, 24 hours (with an E-180 tape)
Alarm recording speed:	3-hour mode
Alarm recording duration:	20 s, 40 s, 1 m, 2 m, 3 m, 5 m, CC*1, TRIG
Fast forward/rewind time:	Approx. 2.5 minutes (with an E-180 tape)

Video

Recording system:	Rotary four-head helical scanning system
Input:	BNC : 1.0 Vp-p, 75 Ω, unbalanced
Output:	BNC : 1.0 Vp-p, 75 Ω, unbalanced
Horizontal resolution:	Colour mode : More than 240 TV lines Black & White mode : More than 320 TV lines
Signal-to-noise:	43 dB

Audio

Audio recording system:	Monaural
Audio recording mode:	3, 12 and 24-hour mode
Input:	–7.8 dBu, 47 kΩ (phono jack)
Output:	–7.8 dBu, 600 Ω (phono jack)
Microphone input:	–60 dBu, 600 Ω (ø3.5 mm mini jack)
Distortion:	Less than 4%
Audio signal-to-noise:	42 dB

Others

Alarm input:	Low level
Alarm output:	+5 V, 5.7 kΩ (Low active)
Switch output:	+5 V, 5.7 kΩ (Low active)
Tape end output:	+5 V, 5.7 kΩ (Low active)
Warning output:	+5 V, 5.7 kΩ (Low active)
External timer input:	Low level
Remote/Tally:	Stereo mini pin
AC input:	3-pin inlet

*1 Duration of alarm recording continues for as long as alarm input remains active.
0 dBu = 0.775 Vrms

SVT-RM10

Remote Control Unit

•Designed to remotely control all SVT VCRs •Provides wired remote control operation for REC/PLAY/STOP/REW/FF/REVPLAY/PAUSE •MENU button and REC/PLAY SPEED button are also available •Length of cable: 2.4 m

SVT-RS1A

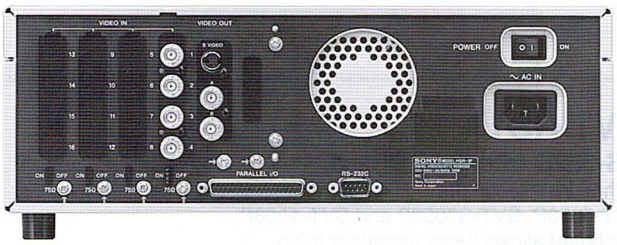
RS-232C Interface Board

•When installed in the SVT-L230P, SVT-5050P, SVT-S3050P and SVT-1000P, this board allows these recorders to be remotely controlled from computers •Connectable with common RS-232C cable (male type) •REC CHECK function is available

HSR-1P

Digital Surveillance Recorder

•Hybrid configuration of HDD and DV tape drive •Four alternative quality modes: Super, High ,Middle and Low modes •Excellent picture quality provided by super mode with a horizontal resolution of more than 500 TV lines •Large storage capacity(more than 60 GB) and long recording time by using DV cassette tape(270-minute tape) as a storage medium •High refresh rate for recording of each camera •High reliability on tape transport mechanism and heads offered by the hybrid configuration of HDD and DV tape drive. •Compact body which matches that of a 14-inch monitor •Compact storage medium which requires less space •Up to 16 camera inputs provided by installing optional HSRA-11 •Built-in triplex multiplexing capability which allows simultaneous playback, recording and monitoring of up to 16 camera inputs. •A variety of monitoring patterns •Two monitoring outputs for simultaneous playback on the first monitor and monitoring on the second monitor •Five preset recording modes to be flexibly combined with picture quality mode, tape length, recording time, number of camera inputs and the recording cycle of each camera. •Flexible camera assignment •RS-232C interface for PC control •Freely configurable 37-pin parallel port •Flexibility in alarm mode •Continuous recording function without breaks even while changing or rewinding the tape •Sophisticated security functions •Water mark •Intelligent search functions: time/date search, alarm search, specific user data search and noiseless picture search •Pre Alarm recording capability for event recording •Power On recording capability •Frame recording in hyper mode



Supplied Accessories:	AC power cord (1)
	Operation manual (1)
Optional Accessories:	HSRA-11 (Input Board)
	SVRM-100A (Remote Control Unit)

Specifications

General

Mass:	10 kg (22 lb 1 oz)
Dimensions:	355 (W) × 125 (H) × 410 (D) mm
	(14 × 5 × 16 1/4 inches)
Power requirements:	AC 220 V ~ 240 V, 50/60 Hz
Power consumption:	80 W (without options)
	115 W (with full options)
Operating temperature:	5°C ~ 40 °C (41 °F ~ 104°F)
Operating humidity:	Less than 80 %
Usable tape:	DV*1 or DVCAM*2 cassette tape
	(standard size, mini size)
HDD capacity:	More than 4.3 GB

System

Video signal:	CCIR standard, PAL colour
Recording system:	Rotary two-head helical scanning system
	Digital components
Quantization:	8-bit
Sampling frequency:	13.5 MHz (4:2:0 components)
Recording/Playback time:	
	Maximum 9999 hours (Approx. 400 days)
Fast forward/Rewind time:	
	Less than 3 min. (with a DV270 tape)

Video

Input:	VBS, VS (BNC type):
	1.0 Vp-p, 75 Ω, unbalanced
Output:	VBS (BNC type):
	1.0 Vp-p, 75 Ω, unbalanced
	S-VIDEO (DIN 4-pin):
	Y: 1.0 Vp-p, 75 Ω, sync negative
	C: 0.3 Vp-p, 75 Ω, at burst level
Quality mode:	SUPER, HIGH, MIDDLE and LOW mode (selectable)
	(Field-by-field recording)
	HYPER mode
	(Frame-by-frame recording with a trigger signal)
Horizontal resolution:	More than 500 TV lines (HYPER and SUPER mode)
Signal-to-noise ratio:	More than 48 dB

Built-in Multiplexer

Input:	4 inputs (up to 16 inputs with optional boards)
Output:	2 outputs
Split screen display:	9 patterns

Connectors

Parallel input/output:	D-SUB 37-pin (1)
	Input: 24 terminals to be freely assigned
	(Alarm, Clock set, Series rec, Alarm cancel, etc.)
	Output: 8 terminals to be freely assigned
	(Auto off, Tape end, Series rec, Rec tally, ect.)
	Power output: +12 V (max 100 mA)
Control S:	Stereo mini (1)

*1 The recorded tape by the HSR-1P cannot be played back on DV equipment.
*2 A DVCAM 184-minute tape can be used with the HSR-1P. It has the same storage capacity as that of a DV 270-minute tape.

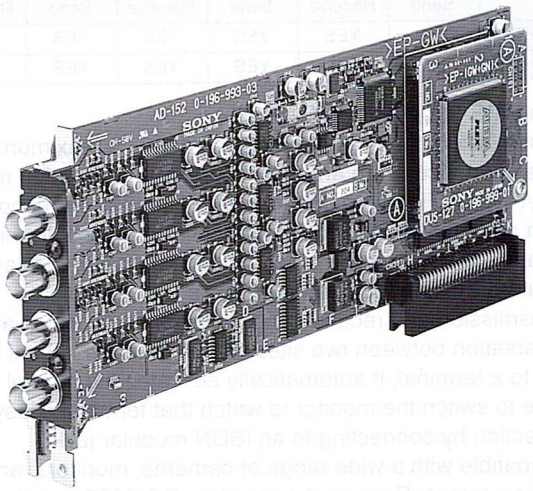
SURVEILLANCE PRODUCTS

HSRA-11

Input Board for HSR-1P

When installed in the HSR-1P, this board enables signals from camera to be input to the unit.

Connector	Input: BNC × 4



SVRM-100A

Remote Control Unit for the HSR-1P

•Provides wired remote control operation for STOP/REC/PAUSE/REW/PLAY/FFWD •JOG/SHUTTLE operation

Specifications

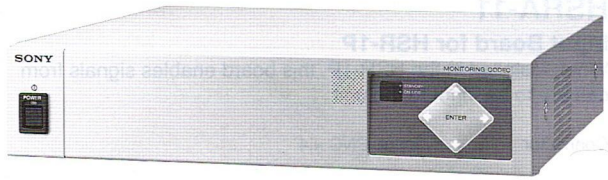
Power requirements:	DC 5 V (supplied from the HSR-1P)
Power consumption:	40 mW
Remote control:	Stereo mini plug
Control signal:	Control S
Dimensions:	90 (W) × 39 (H) × 182 (D) mm (3 5/8 × 1 9/16 × 7 1/4 inches)
Mass:	250 g (8.8 lb)

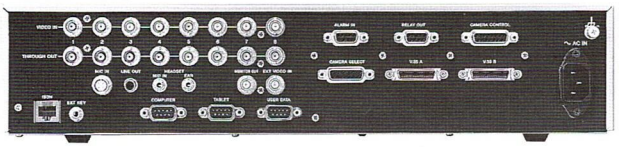
PMS-500P/400P

Monitoring codecs

•PMS-500P and PMS-400P Comparison

	Video		Voice		Control	Data
	Send	Receive	Send	Receive	Send	Receive
PMS-500P	YES	YES	YES	YES	YES	YES
PMS-400P	YES	NO	YES	YES	YES	YES





(Both PMS-500P and PMS-400P)

•Transmission of smooth and clear video at a maximum of 15 frames per second via an ISDN line •Selectable video mode (Fast/Normal/Fine) in monitoring •Accepts 8 camera inputs which are selectable from a control centre or local terminals •I/O port to control camera pan/tilt and zoom lens •Relay output port to control external devices (i.e. door, light) •Transmission and receiving capability of audio which allows conversation between two sites •When an alarm signal is input to a terminal, it automatically activates the control centre to switch the monitor to watch that terminal •Easy connection by connecting to an ISDN modular jack •Compatible with a wide range of cameras, monitors, and TLV equipment •Password protection •RS-232C serial interface for PC control •Remote diagnostics

Supplied Accessories: AC power cord (1)
Operation manual (1)
Tablet operation seals (1)

Specifications

Video

Coding: H.261 (ITU-T recommendation)
Operating bandwidth: Selection of 12 bandwidths ranging from 56 kbps to 384 kbps
Frame rate: Max. 15 frames per second
Picture elements: CIF: Luminance (Y): 352 pixels × 288 lines
Colour difference (B-Y/R-Y): 176 pixels × 144 lines
Colour system: PAL (mutually connectable with NTSC)
P in P: PMS-500P only

Input

Video In/Ext. Video In: 1.0 Vp-p, 75 Ω, sync negative (BNC type)
Video Out/Through Out: 1.0 Vp-p, 75 Ω, sync negative (BNC type)
Monitor Out: 1.0 Vp-p, 75 Ω, sync negative (BNC type)

Input connectors

Video In: PMS-500P: 8
PMS-400P: 8
Ext. Video In: PMS-500P: 1
PMS-400P: 1
Video Out: PMS-500P: 1
PMS-400P: –
Monitor Out: PMS-500P: 1
PMS-400P: 1

Audio

Coding: G.728 (ITU-T recommendation)
Transfer rate: 16 kbps
Bandwidth: 3.4 kHz

Input

Mic In: –60 dBu/600 Ω, balanced (4-pin round connector)
Headphone Mic In: –60 dBu/4.7 kΩ, unbalanced (minijack)
Line Out: Variable, 4.7 kΩ (phono)
Headphone SP Out: Variable, 72 Ω (minijack)

Input connectors

Mic In: PMS-500P: 1
PMS-400P: 1
Headphone Mic In: PMS-500P: 1
PMS-400P: 1
Line Out: PMS-500P: 1
PMS-400P: 1
Headphone SP Out: PMS-500P: 1
PMS-400P: 1

Control procedure coding standards

H.242 System for Establishing Communication
H.320 Overall System
H.230 Control and Indication Signal
H.221 Framing and Signaling Structure

Communications interface

Network

Multiplexing: Video, audio, data
Transmission rate: ISDN interface, 1B/2B
V35 with RS-366 (56 k - 384 k)

Network connectors

ISDN BRI: RJ45
V35 with RS-366: 36-pin half-pitch connector (2)

Computer control port

Interface: RS-232C
Baud rate: 1200/2400/4800/9600/19200/38400 bps

Tablet input

Interface: RS-232C
Baud rate: 9600 bps

User data I/O

I/O parallel

Alarm input: D-sub 9-pin
TTL input, pull-up resistance 10 kΩ
Relay control: D-sub 9-pin
Output mode : Open collector (40 V, 40 mA)
Input mode : TTL input, pull-up resistance 10 kΩ
Camera control: Output mode : Open collector (40 V, 40 mA)
Input mode : TTL input, pull-up resistance 10 kΩ
Remote control unit: Mini jack, SIRCS format
I/O serial: D-sub 9-pin
Baud rate: 1200/2400/4800/9600/19200/38400 bps
Interface: RS-232C or RS-422 (1)
RS-232C or RS-485 (1)
RS-232C (1)
RS-232C: PMS-500P: 3 (switchable with RS-422/485)
PMS-400P: 3 (switchable with RS-422/485)
Alarm input: PMS-500P: 8
PMS-400P: 8
Relay output: PMS-500P: 8
PMS-400P: 8
Camera P I/O: PMS-500P: 12
PMS-400P: 12
SIRCS input: PMS-500P: 1
PMS-400P: 1
RS-485: PMS-500P: (1)
PMS-400P: (1)
Operation keys: PMS-500P: Main unit keys, Remote control (option), Tablet (option)
PMS-400P: Main unit keys, Remote control (option), Tablet (option)

Menu display memory

Screen size: Max. 24 characters × 12 lines (288 characters)
Character font: 24 × 32 pixels

General

Power requirements: AC 220 to 240 V, 50/60 Hz
Power consumption: 0.35 A
Operating temperature: 0°C to 40°C
Operating humidity: 20% to 80% (no condensation)
Storage temperature: –20°C to 55°C
Storage humidity: 20% to 75% (no condensation)
Mass: 7.0 kg
Dimensions: 424 (W) × 88 (H) × 356 (D) mm
(16 3/4 × 3 1/2 × 14 1/8 inches)

SSC-534AM

CCD monochrome video camera

•Compact, lightweight and rugged construction •1/2-inch IT Hyper HAD CCD provides extremely high sensitivity with a minimum illumination of 0.3 lx •Wide angle view—100 degrees horizontally, 80 degrees vertically •Built-in electret condenser microphone •Only single 4-pin Multiple Cable required between the SSC-534AM and the SSM-504AM/724AMR to transmit video and audio signals, together with DC power

Supplied accessories:	Camera bracket
	Rubber cap
	Adhesive
	Self-fusing tapes (2)
	3mm Allen key
	4mm washers (4)
	Angle adjusting screws (4)
	5mm hexagon head bolts (5)
	5mm washers (5)
	Rubber nuts (5)
	Operating instruction manual
Optional accessories:	Camera cable VK-110A/120A (10/20 m)
	Water-resistant extension cable
	VK-305 (5 m)
	Water-resistant camera cable
	VK-310A/320A (10/20 m)

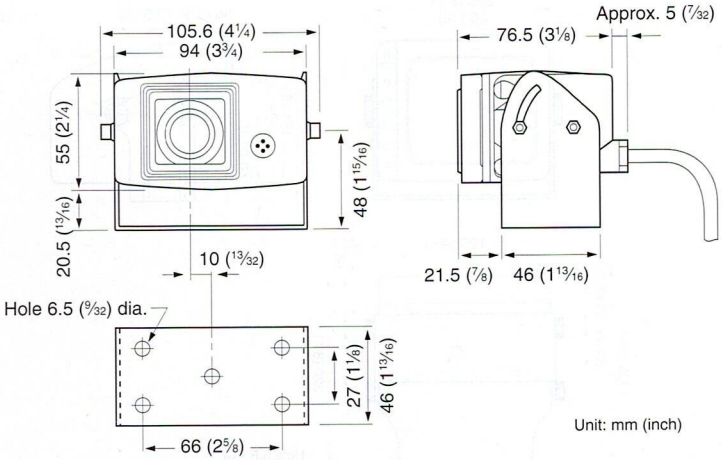
Specifications

Image device:	1/2-inch Interline Transfer Hyper HAD CCD
Picture elements:	500(H) × 582(V)
Sensing area:	6.3 mm × 4.7 mm
Lens:	f=3.0 mm, F1.6 with auto-iris
Video signal system:	CCIR standard
Scanning system:	625 lines, 2:1 interlace
Sync system:	Internal
Horizontal resolution:	380 TV lines
Minimum illumination:	0.3 lx
Signal-to-noise ratio:	50 dB (AGC OFF)
Video/audio output:	4-pin Multi-connector

❶ DC input
❷ Video output: 1.0 Vp-p, 75 Ω, sync negative
❸ Ground
❹ Audio output: -5 dBu (436 mVrms), less than 10 kΩ, unbalanced

Power requirements:	DC 12 V
Power consumption:	1.2 W (at DC 12 V)
Operating temperatures:	-20 to 70°C (-4 to 158°F)
Storage temperatures:	-30 to 85°C (-22 to 185°F)
Mass:	550 g (1 lb 3 oz)

Dimensions



Unit: mm (inch)

SURVEILLANCE PRODUCTS

SSM-504AM/724AMR

5-inch/7-inch monochrome monitor

•Offers bright, clear and high-contrast pictures •Compact, lightweight and rugged construction •Built-in speaker •Day/Night switch adjusts picture brightness for normal or low-light conditions •Automatic back-up operation •Only a single 4-pin Multiple Cable required between the SSC-534AM and the SSM-504AM/724AMR to transmit video and audio signals, together with DC power

Exclusive features for SSM-724AMR

•Semi-flat square/non-glare CRT •Audio output connection for an optional external speaker •Dual camera inputs •Alternative power supply mode (DC 12/24V)

SSM-724AMR

SSM-504AM

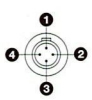
Supplied accessories:	Mounting bracket Screws (4) Bolts (4) Washers (12) Spring washers (8) Nuts (4) Power supply cable Bracket holder Operating instruction manual Montor scale (SSM-724AMR only)
Optional accessory:	Monitor Hood WU-500AM (for SSM-504AM) Monitor Hood WU-700AM (for SSM-724AMR)

SSM-724AMR

SSM-504AM

Specifications

Video signal system:	CCIR standard
Picture tube:	5-inch/7-inch B/W measured diagonally 90 degree deflection
Speaker:	ø50mm (2-inch) Impedance 8Ω, SSM-504AM: 0.3W output (max.), SSM-724AMR: 0.5W OUTPUT (max.)
Video/audio input:	4-pin Multi-connector

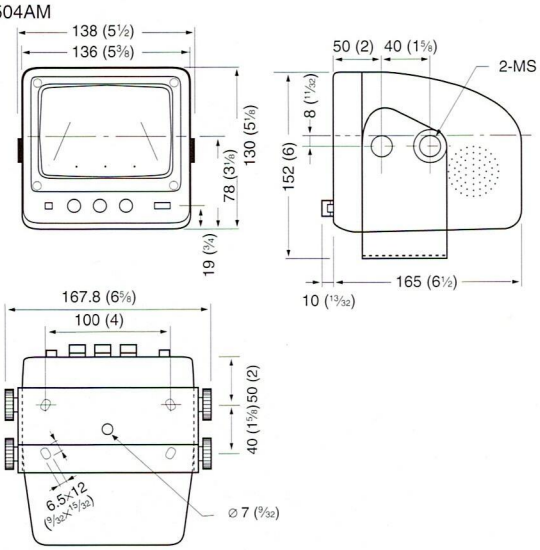


❶ 12V DC output
❷ Video input: 1.0Vp-p, 75Ω, sync negative
❸ Ground
❹ Audio input: -5dBu (436mVrms) more than 30kΩ, unbalanced

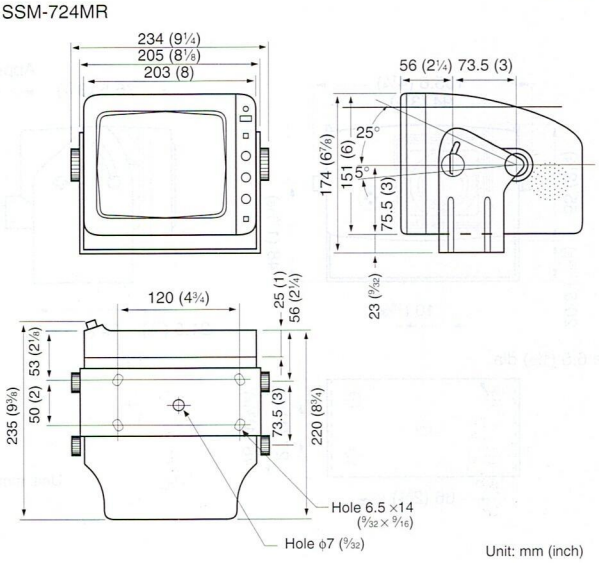
Output:	External speaker jack (mini jack) (SSM-724AMR only), impedance 8Ω
Power requirements:	SSM-504AM: DC 12V SSM-724AMR: DC 12V or 24V
Power consumption:	SSM-504AM: 8W SSM-724AMR: 23W
Operating temperature:	-15 to 60°C (5 to 140°F)
Storage temperature:	-25 to 80°C (-13 to 185°F)
Mass:	SSM-504AM: Approx. 2.5kg (5 lb 8 oz) SSM-724AMR: Approx. 3.2kg (7 lb)

Dimensions

SSM-504AM



SSM-724MR



Unit: mm (inch)

SURVEILLANCE PRODUCTS

SECTION 8 VIDEOCONFERENCING SYSTEM

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PCS-1500P.....274
PCB-500P.....275

2. Videoconferencing system accessories 276

PCS-5100P

TriniCom 5100 *Plus* Rollabout package

•Designed for middle to small group meeting (2 to 6 persons per location) •Complies with the ITU-T H.261/H.263 standard for Video Coding, and the G.722/711/728 for Audio Coding •Either ISDN BRI, a switched line, or a dedicated digital network (for 56 to 384kbps) can be used for communication interface •Enhanced video quality •Smooth motion video achieved by the frame rate of 30fps •4-site multipoint capability for holding videoconferences involving up to four locations •Drop call capability enables the participants to leave the meeting at any time •Wireless remote commander and on-screen menu icons assure easy operation •High-resolution 1/3-inch CCD camera provides excellent picture reproduction •Auto-tracking camera with pan/tilt/zoom capability to detect motion and follow an individual speaker •Supports H.281 Far End Camera Control standard enabling control of the camera of any vendor's CODEC (CODEC supporting H.281) •Rollabout processor combines an ITU-T standard video/audio CODEC, system controller, communication network interface and echo canceller all into one unit •Supports the industry standard PCMCIA Type 2 ATA Card format allowing transfer of JPEG images between the Trinicom and the PC •A second monitor can be added to display documents and graphics with the optional PCS-G510P Dual Monitor Board •High-resolution monochrome documents and full-colour still video pictures can be transmitted and displayed •With Automatic 4 x CIF Image Transmissions the presenter is able to concentrate on their presentation as this enables 4 x CIF images to be sent every few seconds until the presenter stops the transmission (When connected at 384 kbps) •The optional PCS-T500 Drawing Tablet for pointing or drawing on a document or still video •Automatic Lip Sync on/off function •Automatic/manual dialing function

Basic system configuration

•PCS-5100P Rollabout Package - Camera unit, Rollabout processor, External Microphone Kit, Remote commander

Supplied accessories:	S-video cable (1 m) Microphone (3 m) Microphone (8 m × 2) Audio connecting cable (1 m) Connecting cable (1 m) Camera unit cable (8 m) IR repeater ISDN cable (3 m) AC power cord (for Rollabout processor, 2.5 m) Operation manual
Optional accessories:	PCS-F500 Cabinet (for 29 inch monitor) PCS-F510 Cabinet (for 34 inch monitor) PCS-G510P Dual monitor board PCS-R500 Remote commander (For additional purchase) PCS-R510 Key commander PCS-T500 Drawing tablet PCS-I500 V.35 Board PCS-I510 X.21 Board PCS-I520 RS-449 Board PCS-MC10 Memory card PCS-K21 Printer cable PCS-K32 V.35 Cable PCS-K40 RS-449 Cable PCS-K60 S-video Cable PCS-K70 X.21 Cable VID-P110 Video presentation stand VID-P50 Video presentation stand

Specifications

Communication Protocols

H. 221 (Framing and Signaling Structure)
H. 230 (Control and Indication Signals)
H. 242 (System for Establishing Communication)
H. 243 (The Basic MCU Procedure for Communication)
H. 320 (Overall System)
H. 281 (Far-end Camera Control)
ISO 13871 BONDING, Mode 1

Motion Video

Operating bandwidth:	56 kbps (64 kbps) to 384 kbps in 56 k or 64 kbps increments	
Coding:	H. 261 (ITU-T Standard) H. 263 (ITU-T Standard) (56 to 128 kbps with H. 263)	
Picture elements:	CIF	352 pixel 288 lines
	QCIF	176 pixel 144 lines
Video signal system	PAL (As complied with H. 261/H. 263 standard, PCS-5100 can communicate directly with PCS-5100 (NTSC system) and vice versa.)	

Audio

Bandwidth and coding:	G.722	7.0 kHz at 48 k or 56 kbps
	G.711	3.4 kHz at 56 k or 64 kbps
	G.728	3.4 kHz at 16 kbps
Cable length:	8 m (From Rollabout Processor to External Microphone Kit)	

Camera

Camera:	1/3" CCD	
Preset:	up to 6 position (Pan/Tilt/Zoom)	
Picture elements:	752 pixels × 582 lines	
Focal length:	5.4~64.8 mm	
Focus:	Auto/Manual switchable	
Iris:	Auto	
Zoom ratio:	12 ×	
Output signal:	S-Video (1), Composite (1)	
Pan control:	±100°, Motor-driven	
Tilt control:	±25°, Motor-driven	
Resolution:	More than 450 TV lines	
S/N ratio:	45 dB	
Far-end control:	Zoom	Tele/Wide
	Focus:	Auto/Manual (far, near)
	Pan:	Right/Left
	Tilt:	Up/Down
Others:	Auto Tracking, Auto Zooming Back Light Shooting, Brightness Control	

Graphics

Resolution:	704 pixels × 576 lines
Input signal:	S-Video (2), Composite (1) With PCS-G510P, RGB(1) is added.
Compression method:	JPEG (Joint Photograph Expert Group), H.261 Annex D (4 × CIF)
Transmitting time:	Approx.10 s at line rate 112 k to 384 kbps
Storage Capacity:	Max. 30 pages (Color) in total for both graphics and document

Document

Resolution (Processing):	200 dpi (8 dots/mm) (1728 x 2376 in A4 paper)
Resolution (Display):	704 pixels × 576 lines with 16 grey scale
Input signal:	SCSI interfaced to Document Scanner (Scan Jet 4C)
Paper size:	A4
Output signal:	Centronics interfaced to Laser-beam Printer (Recommended: Laser Jet 5L, Laser Jet 6L, Laser Jet 4000, Desk Jet 895Cxi)
Printing time:	approx. 1 min. /A4 Black and White with 16 grey scale
Display scanning:	15.625 kHz (black-and-white with 16 grey-scale)
Compression method:	MMR (Modified Modified READ)
Transmitting time:	Approx. 5 sec at line rate 112 k to 384 kbps
Scanning time:	Approx. 8 sec at A4 paper
Manipulations:	Rotation: 90° step Size: × 1, × 2, × 4 Scroll: Vertical up and down Horizontal right and left
Storage capacity:	Max. 30 pages(Colour) in total for both document and graphics

Picture in Picture

Sub screen size:	1/9
Position:	One of four corners
Motion video mode:	(Main) Motion Video of remote site (Sub) Motion Video of local site
Document mode:	(Main) Document (Sub) Motion Video of remote site
Graphics mode:	(Main) Graphics (Sub) Motion Video of remote site

1. Videoconferencing system

Pointing and Drawing

Input device:	RS-232C interfaced Drawing Tablet (PCS-T500) Electromagnetic Tablet and Pen system
Pointer:	Finger Mark
Line thickness:	3 size
Eraser size:	1 size plus All
Colour:	White/Red/Green for Graphics Black/White for Document

Transmission

Multiplexing:	Video, Audio, Data	
Frame format:	ITU-T H.221	
Interface:	ISDN (BRI) × 3, X.21 × 2* V.35 × 2 with RS-366* RS-449x1* I-Mux*	
Rate:	ISDN	56/64 kbps to 384 kbps in 56/64 kbps increments
	V.35*	56/64 kbps to 384 kbps in 56/64 kbps increments
	Dual V.35*	56 kbps × 2, 64 kbps × 2
	RS-449*	56/64 k~384 kbps in 56/64 kbps increments
	X.21*	56/64 k~384 kbps in 56/64 kbps increments
	Dual X.21*	56 kbps × 2, 64 kbps × 2
	I-Mux*	168 k~384 kbps

Data Port

RS-232C:	Aux Control Port	(1), 9.6kbps, /Stop bit 2/Non parity/Data bit 8
	User Data Port	(1), 9.6kbps/38.4 kbps, /Stop bit 1/Non parity/Data bit 8

Lip Synchronization

System	Automatic Manual ON/OFF

Echo Cancellation

Bandwidth:	7 kHz

Diagnostics

Local operation:	Remote Commander or Data Terminal
Remote operation:	Data terminal via Modem through analogue telephone network Rollabout via ISDN or digital network

Remote Commander

Signal format:	Infrared SIRCS
Key:	Direction Pad and Exec. Key Power On and Mic Mute
Power:	AA/LR6/AM3 (N) Alkaline52 battery

General

Operating temperature	5°C to 35°C (41°F to 94°F)
Operating humidity	20% to 80%
Storage temperature	–20°C to 60°C (-4°F to 140°F)
Storage humidity	20% to 80%
Power requirement	AC 220 to 240V, 50/60Hz
Power consumption	0.5A
Dimensions:	
Rollabout Processor:	190 (W) × 340 (H) × 310 (D) mm (7½ × 13½ × 12¼ inches)
External Microphone Kit:	120 (W) × 32.5 (H) × 113 (D) mm (4¾ × 1 5/16 × 4½ inches)
Camera Unit:	142 (W) × 109 (H) × 164 (D) mm (5⅝ × 4⅜ × 6½ inches)
Remote Commander:	42 (W) × 30 (H) × 182 (D) mm (1 11/16 × 1 3/16 × 7¼ inches)
Mass:	
Rollabout Processor:	9.0 kg (19 lb 13 oz)
External Microphone Kit:	0.5 kg (1 lb 2 oz)
Camera Unit:	1.2 kg (2 lb 10 oz)
Remote Commander:	0.13 kg (4.6 oz)

NOTE: *: An optional board is required.

* The above photograph is an example of the TriniCom 5100 *Plus* system, including the PCS-5100P.

PCS-1500P

Compact Conference Package

•Compact, complete set-top box-type videoconferencing system •Easy to use and easy to install (Plug and Play) •Supports a bandwidth of up to 128 kbps as a standard. Can be upgraded to 384 kbps for high quality video (H. 263 / H. 261) and enable four-site multipoint operation •Continuous 4 x CIF image transmission as a standard. Allows presenter to concentrate on the presentation •With the optional Document Stand PCS-DS150P, PC screens can be sent via infrared signals to the PCS-1500P •Audio conference participation possible via ordinary telephone •Supports international standards: ISDN (H. 320), LAN/WAN (H.323)* •Detachable pan, tilt, zoom camera with auto tracking

* with optional LAN Board PCS-I152

PCS-1500P package configuration:
Compact Processor with Camera and Microphone, Remote Commander

Supplied Accessories:
S-video cable (1.3 m) (1)
IR Repeater (1)
ISDN cable (5 m) (1)
Audio cable (Pin) (1)
AC Adaptor (1.5 m) (1)
AC Power Code (1)
Operation Manual (3)

Optional accessories:
PCS-DS150P Document Stand
PCS-I150 2BRI Board
PCS-I151 V.35 Board
PCS-I152 LAN Board
PCS-UC150 Upgrade Kit for H. 320 MCU
PCS-A300 Microphone
PCS-K32 V. 35 Cable

Specifications

Motion video

Operating bandwidth:

BRI:	56 k/64 k to 128 kbps in 56 k or 64 kbps
BRI:	56 k/64 k to 384 kbps in 56 k or 64 kbps (option)
V.35:	Up to 384 kbps (option)
LAN:	384 kbps Equivalent (option)
Coding:	H.261, H.263 (ITU-T Standard)
Picture elements:	CIF: 352 pixels × 288 lines QCIF: 176 pixels × 144 lines
Video signal system:	PAL

Audio

Bandwidth and coding:
G.711: 3.4 kHz at 56/64 Kb/s
G.722: 7.0 kHz at 48/56 Kb/s
G.728: 3.4 kHz at 16 Kb/s
G.723.1: 3.4 kHz at 6.4 kb/s (H.323 only)

Camera

Camera:	1/3" CCD
Presets:	up to 6 positions
Picture elements:	752 pixels x 582 lines
Focal length:	5.4 to 64.8 mm
Focus:	Auto / Manual
IRIS:	Auto
Zoom ratio:	12X
Pan control:	+/-100°, motor driven
Tilt control:	+/-25°, motor driven
Resolution:	More than 450 TV lines
Far-end control / H.281:	Zoom: Tele / Wide Focus: Auto / Manual (far, near) Pan: Right / Left Tilt: Up / Down
Functions:	Zoom, focus, pan, tilt, auto tracking, auto zooming, and back light control

Still Picture (H.320 only)

Resolution:	704 pixels x 576 lines
Compression method:	H.261 Annex. D (4CIF)
Transmitting time:	Approx. 5 s at line rate 112 k to 128 kbps Approx. 1 to 2 s at line rate 366 k to 384 kbps (option)

Picture in Picture

Sub Screen Size: 1/9

Transmission

Multiplexing:	Video, Audio, Data
Frame format:	ITU-T H. 221 (H.320), ITU-T H.225 (H.323)
Interface:	ISDN (BRI) (1) ISDN (BRI) (3) - option V.35 with RS-366 - option LAN 10BASE-T - option
Rate:	ISDN (2B): 56/64 k to 128 kbps in 56/64 kbps increments ISDN (6B): 56/64 k to 384 kbps in 56/64 kbps increments V.35: 56/64 k to 384 kbps in 56/64 kbps increments LAN: Auto Rate Adoption up to 384 kbps equivalent

T.120 Port

RS-232C (1), 9.6 / 115.2 kbps

Lip synchronization

Manual ON/OFF

Echo Cancellation

7 kHz, Ext echo canceller is applicable

Diagnostics

Local operation:	Remote commander or data terminal (PC)
Remote operation:	PCS-1500P for set up status check & correction

Remote Commander

Key:	Direction pad and exec. Key Direct dial / camera select / P in P Power On / Off Mic On / Off
Power:	AA / LR6 / AM3 (N) Alkaline (2) battery
Dimensions:	50 (W) × 35 (H) × 239 (D) mm (2 × 1 7/16 × 9 ½ inches)
Mass:	180g (6 oz) (including batteries)

General

Operating temperature:	5° to 35° C (41° to 95° F)
Operating humidity:	20 to 80 %
Storage temperature:	-20° to 60° C (-4° to 140° F)
Storage humidity:	20 to 80 %
Power requirement:	100 to 240 V AC, 50/60 Hz
Power Consumption:	1.0 A to 0.6 A
Dimensions:	(including camera) 258 (W) × 134 (H) × 216 (D) mm (10 ¼ × 5 ⅜ × 8 ⅝ inches)
Mass	2.5 kg (5 lb 8 oz)

PCB-500P

PC Conference Kit

•Designed for personal data communication on PC environment •Employs high quality video camera with excellent picture quality •Complies with the ITU-T H.320 standard for video coding •Complies with H. 323 standards for communication via LAN •Supports H.281 Far End Camera Control standard enabling control of the camera of any vendor's products (Products supporting H.281) •Video quality adjustment •Scaleable video windows •Picture-in-picture and picture-out-picture function •Hands-free operation via the camera unit's built-in microphone •A supplied handset •Lip sync function and echo canceller •Plug-and-play capability for easy installation •A simple yet comprehensive icon menu for easy and intuitive operation •PC phone function •Telephone directory function •Supports T.120 •Application software sharing on either PC •File transfer capability •White-board capability •Supports NetMeeting™ •Internet Access capable •MVIP Option •MCU Chairman Control

PCB-500P Kit:	PC Conference board Camera unit Handset PC Conference software
Supplied accessories:	ISDN cable (1.8m x1) Cable for handset Operating instructions Installation manual

Specifications

General

Operating temperature:	0°C to 40°C (32°F to 140°F)
Operating humidity:	20% to 80% (based on room temperature of 25°C (77°F))
Preserving temperature:	-25°C to 80 °C (-13°F to 176°F)
Preserving humidity:	10% to 80% (without condensation)
Power requirement:	DC 5V
Power consumption:	0.6 A
Dimensions:	PC conference board: 126 (W) × 22 (H) × 176 (D) mm (5 × 7/8 ×7 inches) Camera unit: 48.6 (W) × 34.9 (H) × 90 (D) mm (1 15/16 × 1 3/8 × 3 5/8 inches) Handset: 45 (W) × 43 (H) × 205 (D) mm (1 13/16 × 1 3/4 × 8 1/8 inches)
Mass:	PC conference board: 160 g (5.6 oz) Camera unit: 110 g (3.0 oz) Handset: 120 g (4.2 oz)

Transmission

Transfer rate:	ISDN 56 k to 128 kbps (Max. 384 kbps using optional board*) LAN up to 1.5 Mbps (requires LAN board)

Video

Compression:	ITU-T standard H.261/H.263 compatible
Transmitted resolution:	FCIF: 352 × 288 pixels up to 15 frames/sec. QCIF: 176 × 144 pixels up to 30 frames/sec.
Video input:	Camera-1/Camera-2 inputs switchable via software NTSC/PAL auto detection
SVGA resolution:	All SVGA resolutions with 32 k or 64 k colours
Software-controlled features:	Contrast, hue, brightness and colour control Video quality adjustment Scaleable screen size (fixed aspect ratio 4:3)

Audio

Compression:	ITU-T standard: G.722 7kHz at 64kbps G.711 3.4kHz at 56kbps G.728 3.4kHz at 16kbps
Audio input:	Telephone handset supplied; built-in microphone in camera unit
Audio output:	Line-level output Sound Blaster card with multimedia speakers
Software-controlled features:	Volume control and mute Echo canceller

Camera

Image sensor:	1/4 inch CCD
Effective pixels:	270 k pixels (effective: 250k)
Lens:	f = 3.9mm/F1.8
White balance:	Auto
Min. illumination:	9 lx.
Video out:	8 pin mini DIN, 1.0Vp-p composite
Power requirement:	DC 5V, 1.3 W

PC System Requirements

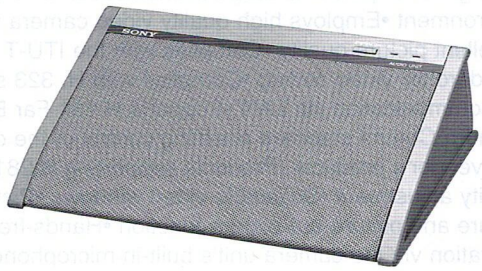
Platform:	IBM PC or equivalent PCI bus and PCI VGA card that supports Direct Draw with minimum 2 Mbytes of memory
CPU:	Pentium 166 MHz for H. 320 ISDN Pentium 200 MHz for H. 323 LAN
OS:	Windows 95, Windows 98, Windows NT
Memory::	64 MB or more
Hard disk:	More than 30 MB
Monitor:	SVGA Monitor required

* IBM is a trademark of IBM Corporation.
* Pentium is a trademark of Intel Corporation.
* Windows and NetMeeting is a registered trademark of the Microsoft Corporation.

PCS-A510*

Audio unit for PCS-5100P

•Additional audio unit for the PCS-5100P
•Covers a total of five to six attendants in a conference



Supplied accessories:
Joint cable (mini DIN 8-pin ↔ mini DIN 8-pin, 3 m)

Bandwidth: 7.0 kHz
Power: Supplied from the Rollabout processor (+12 V)
Mass: 1.0 kg (2 lb 3 oz)
Dimensions: 276 (W) × 83 (H) × 185 (D)mm (10⅞ × 3⅜ × 7⅜ inches)

*Can only be use with PCS-5100P supplied with Audio Unit. For details, please contact your nearest Sony office.

PCS-A520EK*

External Microphone Kit for PCS-5100P

•Additional microphone kit for the PCS-5100P •Includes one microphone, terminal box and eight meters multi cable to connect between the CODEC and the terminal •Terminal interfaces up to three microphones and one drawing tablet.

Supplied accessories:
Microphone (3 m cable)
Cable (for Rollabout Processor)
Operation Manual
Mass: 0.5 kg (1 lb 2 oz)
Dimensions: 120 (W) × 32.5 (H) × 113 (D) mm (4 ¾ × 1 5/16 × 4 ½ inches)

*Can only be use with PCS-5100P supplied with Audio Unit. For details, please contact your nearest Sony office.

PCS-F500

Cabinet for PCS-5100P

•Holds the rollabout processor and supports virtually any size monitor for PCS-5100P

Mass: 33.0 kg (72 lb 12 oz)
Dimensions: 590 (W) × 760 (H) × 703 (D)mm (23¼ × 30 × 27¾ inches)

PCS-F510

Cabinet for 34 inch monitor for PCS-5100P

•Holds the rollabout processor and a 34 inch monitor for PCS-5100P

Mass: 52.0 kg (114 lb 10 oz)
Dimensions: 800 (W) × 760 (H) × 788 (D) mm (31½ × 30⅛ × 31⅛ inches)

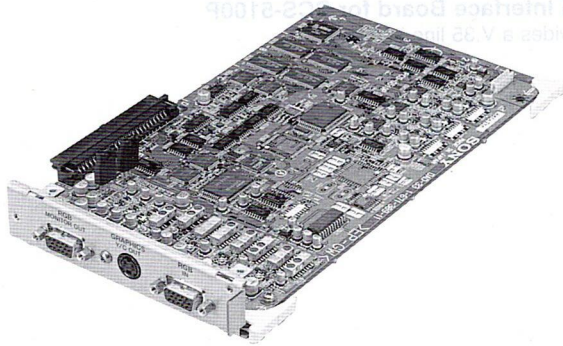
PCS-G510P

Dual monitor board for PCS-5100P

•Adds a second monitor to the PCS-5100P to display documents and graphics in a dual-monitor system
•VGA and SVGA input
•Built in down converter for VGA/SVGA images to be converted to S-video

Supplied accessories:
IR repeater

Mass: 0.3 kg (10 oz)
Dimensions: 135 (W) × 28.5 (H) × 242 (D) mm
(5 3/8 × 1 1/8 × 9 5/8 inches)



PCS-R500

Remote commander for PCS-5100P

•Additional remote commander for PCS-5100P

Mass: 0.13kg (4.6 oz)
Dimensions: 42 (W) × 30 (H) × 182 (D) mm
(1 11/16 × 1 3/16 × 7 1/4 inches)

PCS-R510

Key Commander for PCS-5100P

•Additional remote key commander for PCS-5000P

Mass: 0.3 kg (6 oz)
Dimensions: 89 (W) × 197 (H) × 36 (D) mm
(3 5/8 × 7 7/8 × 1 7/16 inches)

VIDEOCONFERENCING SYSTEM

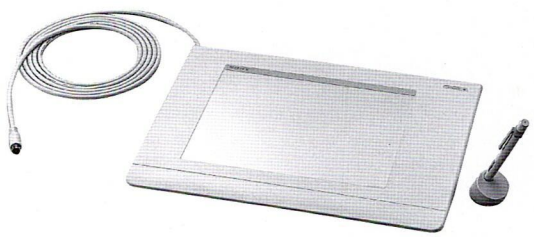
PCS-T500

Drawing tablet for PCS-5100P

•Allows PCS-5100P users to point or draw on the document or still video

Supplied accessories:
Tablet cable (2.5 m)
Pen
Pen stand
Operation manual

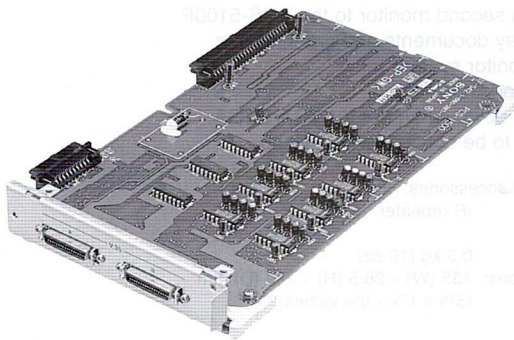
Mass: 0.95 kg (2 lb 2 oz)
Dimensions:
330 (W) × 13.9 (H) × 243 (D) mm
(13 × 9/16 × 9 5/8 inches)



PCS-I500

V.35 Interface Board for PCS-5100P

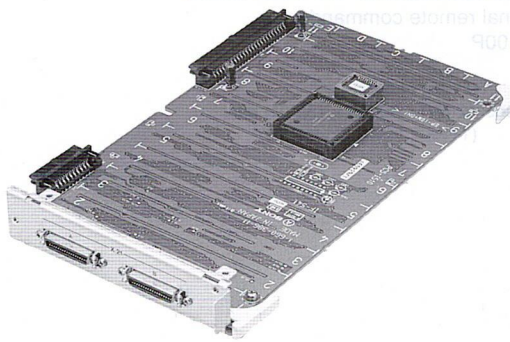
•Provides a V.35 line interface



PCS-I510

X.21 Interface Board for PCS-5100P

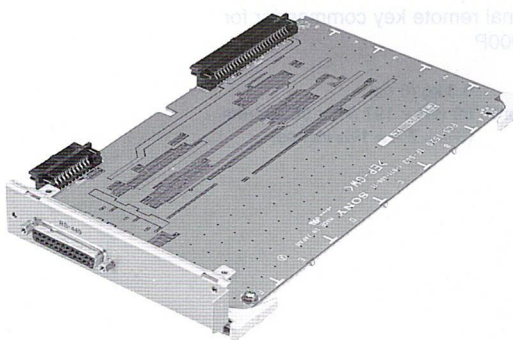
•Provides an X.21 line interface



PCS-I520

RS-449 Interface Board for PCS-5100P

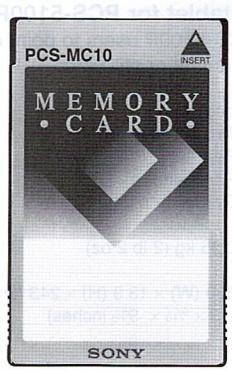
•Provides an RS-449 line interface



PCS-MC10

Memory Card for PCS-5100P

•Records up to 30 still pictures



PCS-K21

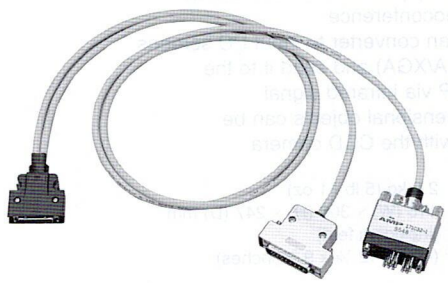
Printer Cable for PCS-5100P

•Connects the Rollabout Processor and a printer (3 m, 9.8 ft)

PCS-K32

V.35 Conversion Connector Cable for PCS-5100P and PCS-1500P

•Connects the V.35 connector to the terminal adapter (1 m, 3.3 ft)



PCS-K40

RS-449 Conversion Connector Cable for PCS-5100P

•Connects the RS-449 Connector to the terminal adapter in the RS-449 line interface (1 m, 3.3 ft)

PCS-K60

S-video cord for PCS-5100P

•Cord for connecting video equipment with S-video connector (5 m)

PCS-K70

X.21 Conversion Connector Cable for PCS-5100P

•Connects the X.21 connector (X.21 interface board PCS-I510) to the terminal adapter (1 m, 3.3 ft)

PCS-DS150P

Document Stand

•Enables easy presentation of material during videoconference
•Built-in scan converter to input PC screens (VGA/SVGA/XGA) and send it to the PCS-1500P via infrared signal
•Three-dimensional objects can be displayed with the CCD camera

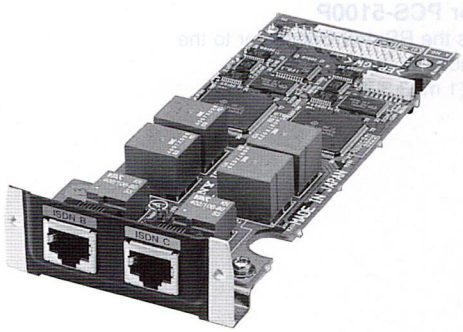
Mass: 2.6 kg (5 lb 11 oz)
Dimensions: 116 (W) × 306 (H) × 247 (D) mm (including feet)
(4 5/8 × 12 1/8 × 9 3/4 inches)

PCS-I150

BRI Board (2BRI Extension)

•Interface with ISDN (BRI) x 3 (384 kbps) becomes possible

Mass: 75 g (2 oz)
Dimensions: 70 (W) × 27 (H) × 160 (D) mm
(2 7/8 × 1 1/8 × 6 3/8 inches)

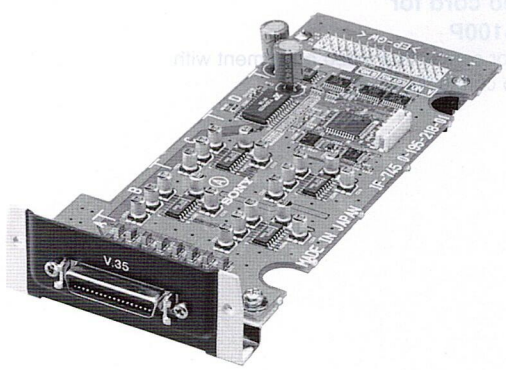


PCS-I151

V.35 Board

- Provides a V.35 line interface

Mass: 60 g (2 oz)
Dimensions: 70 (W) × 27 (H) × 166 (D) mm
(2 7/8 × 1 1/8 × 6 5/8 inches)

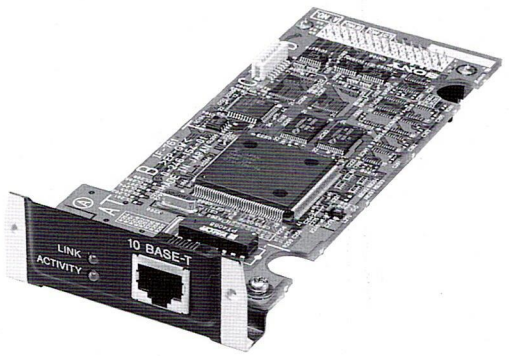


PCS-I152

LAN Board

•Provides LAN interface
•Follows ITU-T H.320 standard
•Setup data can be up/down loaded via FTP
•Remote up version is possible via FTP

Mass: 60 g (2 oz)
Dimensions: 70 (W) × 27 (H) × 160 (D) mm
(2 7/8 × 1 1/8 × 6 3/8 inches)



PCS-UC150

Upgrade Kit for H.320 MCU

•4-site multipoint capability
•Enables multipoint conference with other systems which complies with the ITU-T H.320 standard

Mass: 30 g (1 oz)
Dimensions: 54 (W) × 4 (H) × 86 (D) mm
(2 1/4 × 3/16 × 3 1/2 inches)

PCS-A300

Microphone Unit for the PCS-1500P

•Microphone unit for the PCS-1500P

Supplied accessory:
Cable (8 m)
Bandwidth: 7.0 kHz
Power: Plug-in power
Mass: 0.2 kg (7.1 oz)
Dimensions : 68 (W) × 15 (H) × 90 (D) mm
(2 3/4 × 19/32 × 3 5/8 inches)

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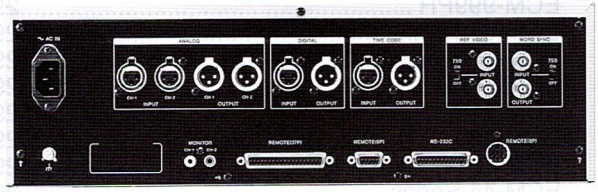
PCM-7040

2-channel Digital Audio Recorder

•Start ID level sync function •Internal clock for time data •Eject control via 37-pin parallel remote •Key reassignment for ease of use •ISR support •Sophisticated electronic editing capability •SMPTE/EBU time code recording/reading •Memory start for instant-start playback •Synchronized operation with video/audio equipment •Time code chase synchronization •4-head construction for RAW (Read-After-Write) and RMW (Read-Modify-Write) •Search/location capability •Variable speed playback in a range of ±12.5% •Controlled from Sony video editor BVE-9100/2000 •19-inch rack mountable with optional rack mount rail/adaptor RMM-30/31 (The RMM-30/31 requires the rack to be at least 26-inch in depth)



Supplied Accessories:	AC power cord (1) Operation manual (1)
Optional accessories:	RM-D7200* Dual Remote Controller (*Not available in some areas.) RM-D7100 Remote Controller RMM-30 19-inch Rack Mount Rail RMM-31 19-inch Rack Mount Adaptor ECD-3C/10C Digital Audio Cable PDP-15C/35C/50C/65C/95C/125C Digital Audio Tape DT-60RA/90RA/120RA Digital Audio Tape DT-10CLD Cleaning Tape

Specifications

Tape Format/Performance

Recording System:	Rotary-head DAT recording
Tape Speed:	8.15 mm/s
Recording Time:	124 minutes (with Sony PDP-124)
Scanner Rotation Speed:	2000 rpm (standard recording/playback)
Track Pitch:	13.6 µm
Head System:	Helical scanning rotary 4-head system
Variable Speed Range:	±12.5% (playback)
FF and REW Time:	Max. 60 s (with Sony PDP-124)
Shuttle Speed:	x±1/5, x±1/2, x±1, x±3, x±8 or x±16 normal speed
Jog Speed:	x±0 to x±1, x±3 normal speed

Digital Audio Signal

Number of Channels:	2 channels
Sampling Frequency:	48 kHz, 44.1 kHz
Quantization:	16-bit linear
Error Correction:	Double-encoded Read Solomon Code
Modulation:	8 to 10 modulation
Frequency Response:	20 Hz to 20 kHz ±0.5 dB
S/N Ratio:	More than 90 dB
T.H.D.:	Less than 0.05% at reference level
Wow and Flutter:	Below measurable limit
Crosstalk:	Less than -80 dB (20 Hz to 20 kHz)
Emphasis:	50 µs/15 µs, ON/OFF switchable
Phase Difference between Channels:	Within 10° (20 kHz)
Delay Time:	Approx. 135 ms (RAW mode)

Inputs/Outputs

Analog Inputs:	+4 dBu (+24 dBu max.), 10 k or 600 Ω, balanced, XLR-3-31 type (x 2)
Analog Outputs:	+4 dBu (+24 dBu max.), less than 50 Ω, balanced, XLR-3-32 type (x 2)
Digital Inputs:	AES/EBU (with transformer), 110 Ω, XLR-3-31 type
Digital Outputs:	AES/EBU (with transformer), 20 Ω, XLR-3-32 type
Time Code Inputs:	IEC461 (SMPTE/EBU), 0.5 to 10 Vp-p (10 kΩ), XLR-3-31 type
Time Code Outputs:	IEC461 (SMPTE/EBU), 2.4 Vp-p, XLR-3-32 type
Word Sync Inputs:	TTL compatible, 75 Ω, unbalanced, BNC type
Word Sync Outputs:	TTL compatible, low impedance, unbalanced, BNC type
Video Sync Inputs:	NTSC/PAL/SECAM or 50 Hz 60 Hz square wave, 0.3 to 4 Vp-p, 75Ω, unbalanced, BNC type
Parallel Remote:	TTL compatible, D-sub 37-pin, TTL compatible, DIN 8-pin
Serial Remote:	RS-422, D-sub 9-pin
Computer I/F:	RS-232C, D-sub 25-pin
Monitor Outputs:	-10 dBu, at less than 150 Ω, RCA pin jack (x 2)
Headphone Outputs:	-26 dBu at reference level (8 Ω load), stereo phone jack

General

Dimensions:	424 (W) × 132 (H) × 360 (D) mm 16 ¾ × 5 ¼ × 14 ¼ inches
Mass:	10 kg (21 lb 1 oz)
Power Requirements:	AC 120 V ±10%, 60 Hz, 230 V +6/-10%, 50/60 Hz
Power Consumption:	38 W at AC 120 V 0.3 A at AC 230 V

* 0 dBu = 0.775 V

PCM-R700/R500

2-Channel Digital Audio Recorder

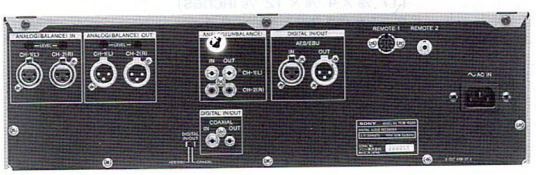
•High-reliability 4 D.D. mechanical transport mechanism with 4 direct drive motors for a stable tape run •Equipped with auto head cleaning for improved sound quality •4-head construction for confidence monitoring (PCM-R700) •Easy system operation with Shuttle and Jog dial •Shuttle for easy fast forward/rewind and half speed search •Jog dial for convenient AMS/Program Number •Setup menu for preference section- set ID6, level sync threshold, date, etc •SBM recording function achieving an S/N ratio equivalent to that of a 20-bit system •Built-in DIN 8-pin parallel remote connector and supplied wireless remote commander (RM-D757) •R-core transformer for reduced leakage flux •Independent Channel 1/ Channel 2 recording level volume controls for eliminating crosstalk •Wide range of audio interface options

Supplied Accessories:	Wireless remote commander RM-D757 (1) AC power cord (1) Screws (M5 × 12) (4) Decorative washers (4) Operation manual (1)
Optional Accessory:	RM-D750 Remote Controller

PCM-R700

PCM-R500

PCM-R700



PCM-R500

Specifications

Digital Audio Signal Format

System:	Rotary head DAT recording
Tape:	Digital audio tape
Modulation:	8 to 10 Modulation
Digital Audio Channel:	2 channels, stereo
Sampling Frequency:	48 kHz, 44.1 kHz, 32 kHz
Quantization: Standard:	16-bit linear
Long-play :	12-bit non-linear
Error Correction:	Double-encoded Reed Solomon Code
Drum Rotation: Standard:	2,000 rpm
Long-play:	1,000 rpm

Inputs/Outputs

Analog IN (Balanced)	XLR-3, Female
Reference level:	+4 dBu to -12 dBu
Analog IN (Unbalanced):	RCA Phono, -12 dBu
Analog OUT (Balanced):	XLR-3, Male
Reference level:	+4 dBu to -12 dBu
Analog OUT (Unbalanced):	RCA Phono, -12 dBu
Digital IN (AES/EBU):	XLR-3, Female
Digital OUT (AES/EBU):	XLR-3, Male
Digital IN (Coaxial):	RCA Phono
Digital OUT (Coaxial):	RCA Phono

Remote Interface

REMOTE (8-pin):	DIN connector (Parallel)
Optional Remote Commander IN:	Mini plug (Serial)

General

Power Requirements:	AC 120 V, 60 Hz (U.S.A. and Canada) AC 220 to 230 V, 50/60 Hz (Europe)
Power Consumption:	34 W
Dimensions:	482 (W) × 145 (H) × 355 (D) mm (19 × 5 ¾ × 13 ⅞ inches)
Mass:	(R500) 7.2 kg (15 lb 14 oz) (R700) 7.3 kg (16 lb 2 oz)

PCM-R300

2-Channel Digital Audio Recorder

•SBM recording function achieving an S/N ratio equivalent to that of a 20-bit system •Start ID, End ID, Skip ID, control on the front panel •Setup menu for preference section - set ID6 (SCMS), level sync threshold •Error rate display selectable in display mode •Coaxial and optical digital interface •A/D and D/A monitoring modes •Recording and playback in Long play mode •Supplied rack mount adaptor for rack mounting

Supplied Accessories:
- Wireless remote commander RM-D757 (1)
- AC power cord (1)
- Screws (M5 x 12) (4)
- Decorative washers (4)
- Operation manual (1)
- Rack mount adaptors (2)

Specifications

Digital Audio Signal Format

System:	Rotary head DAT recording
Tape:	Digital audio tape
Modulation:	8 to 10 Modulation
Digital Audio Channel:	2 channels, stereo
Sampling Frequency:	48 kHz, 44.1 kHz, 32 kHz
Quantization: Standard:	16-bit linear
Long-play:	12-bit non-linear
Error Correction:	Double-encoded Reed Solomon Code
Drum Rotation:	Standard: 2,000 rpm
Long-play:	1,000 rpm

Inputs/Outputs

Analog I/O (Unbalanced):	RCA Phono, -12 dBu
Digital I/O:	Optical jack
	Coaxial (RCA Phono)

General

Power Requirements:	AC 120 V, 60 Hz (U.S.A. and Canada)
	AC 220 to 230 V, 50/60 Hz (Europe)
Power Consumption:	30 W
Dimensions:	432 (W) × 122 (H) × 325 (D) mm
	(17 1/8 × 4 7/8 × 12 7/8 inches)
Mass:	5.0 kg (11 lb)

RM-D7200*

Dual Remote Controller for PCM-7040

•Provides remote control of two recorder transports

*Not available in some areas.

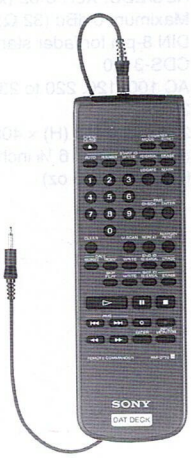
RM-D7100

Remote Controller

•Provides remote control of recorder transport functions of PCM-7040 via 37-pin parallel interface

RM-D750

Remote Controller for PCM-R700/R500



AUDIO EQUIPMENT

CDP-3100/CDS-3100

CD Player System

•Front loading and highly compact CD player •Two units can be mounted in a 19-inch rack •Fully featured remote control, including jog dial for comprehensive control in on air and production applications •AES/EBU digital and balanced XLR analog outputs •Variable speed playback in a range of ±12.5% in 0.1% steps

Supplied Accessories:	<CDP-3100 CD Player> AC power cord (1) Operation manual (1) <CDS-3100 Remote Controller> Connecting cord (2 m, 1) Operation manual (1)
Optional Accessories:	DABK-3101 Memory Board DABK-3102 Interface Board

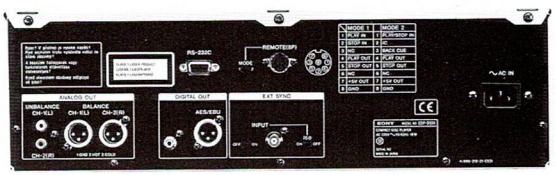
Specifications (CDP-3100)

Number of Channels:	2 channels (stereo)
Readout System:	Non-contact optical system using semiconductor laser pick-up
Laser:	GaAlAs double hetero junction diode with 780 m wavelength
Rotational Speed:	Between approx. 200 rpm (outer circumference) and 500 rpm (inner circumference)
Error Correction:	Sony super strategy cross Interleave Reed Solomon Code (CIRC)
D/A Conversion:	18-bit 8 times oversampling
Frequency Response:	20 Hz to 20,000 Hz +0.5 dB/-1.0 dB
Harmonic Distortion:	Less than 0.01%
Wow and Flutter:	Below measurable limit
Signal-to-noise Ratio:	More than 92 dB
Crosstalk:	Less than -80 dB at 20 kHz
Variable Speed Range:	± 12.5%
Outputs	
LINE OUT:	Balanced, XLR-3-32 type (x 2), nominal +4 dBu (600 Ω), maximum +19 dBu (600 Ω)
MONITOR OUT:	Unbalanced (x 2), nominal -10 dBu (47 kΩ) maximum +5 dBu (47 Ω)
DIGITAL OUT:	AES/EBU, XLR-3-32 (x 1)
HEADPHONE OUT:	Maximum 0 dBu (32 Ω)
Remote Control I/F:	DIN 8-pin for fader start control, 10-pin for CDS-3100
Power Requirements:	AC 100, 120, 220 to 230, 240 V, 50/60 Hz
Power Consumption:	35 W
Dimensions:	212 (W) × 118 (H) × 408 (D) mm (8 1/3 × 4 3/4 × 16 1/8 inches)
Mass:	6.5 kg (14 lb 5 oz)

CDP-D500

CD Player

•Jog Shuttle Dial for CD frame accurate cueing •CD TEXT format compatibility for various CD TEXT information (Disc title, Track title, etc) to be read out via RS-232C port •Last cue memory function can be utilized by Cue/stdby button •Built-in DIN 8-pin remote control connector for fader start/stop from a mixing console •Built-in Word sync input with wide lock range (44.1 kHz ±12.5%) •Index cueing capability •Variable speed playback (±12.5% in 0.1% steps) •Auto cue playback for rapid start from a point where modulation is detected (signal detection level is adjustable) on disc •Adjustable (1 to 9 seconds) Auto fade on the front panel •Direct track access on the front panel •Built-in digital outputs conforming to AES/EBU and Unbalanced (IEC-958) formats •Accommodates both 8 cm (3-inch) and 12 cm (5-inch) compact discs



Supplied Accessories: Wireless remote commander RM-D500 (1)
AC power cord (1)
Screws (M5 x 12) (4)
Decorative washers (4)

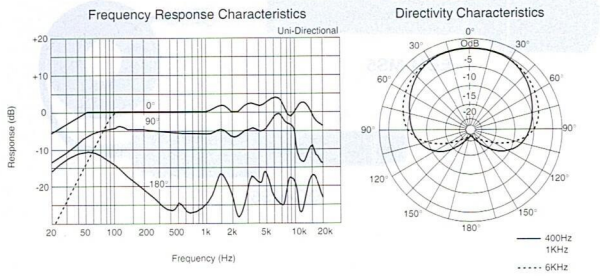
Specifications

Frequency Response:	5 Hz to 20,000 Hz
Signal-to-noise Ratio:	More than 100 dB (20,000 Hz LPF IHF-A Weighted)
Dynamic Range:	More than 98 dB
T.H.D.:	Less than 0.004% (at 1 kHz, 0 dB 20 kHz LPF)
CH Separation:	More than 100 dB (at 1 kHz to 20 kHz LPF)
Analog Output:	
XLR-3	
Output Impedance:	100 Ω
Max. Output Level:	+24 dBu
Load Impedance:	10 kΩ
RCA Phono	
Output Impedance:	200 Ω
Max. Output Level:	+9 dBu
Load Impedance:	10 kΩ
H.P.(RCA Phone)	
Output Impedance:	150 Ω
Max. Output Level:	15 mV
Load Impedance:	32 Ω
Digital Output:	
AES/EBU (XLR-3)	
Output Impedance:	35 Ω
Output Level:	—
Adaptable Load Impedance:	110 Ω
IEC-958 (RCA Phono)	
Output Impedance:	75 Ω
Output Level:	0.5 p-p
Adaptable Load Impedance:	75 Ω
Word Sync Input:	
Input Impedance:	22 kΩ/75 Ω Switchable (BNC)
Input Level:	2 Vp-p (TTL)
Lock Range:	44.1 kHz+12.5% (38.59 kHz to 49.6 kHz)
Remote Interface:	Parallel DIN 8-pin (2 modes) Serial RS-232C (D-sub 9-pin)
Dimensions:	482 (W) × 145 (H) × 335 (D) mm (19 × 7 7/8 × 14 7/8 inches)
Mass:	7.1 kg (15 lb 10 oz)

ECM-23F3PR

Electret Condenser Microphone

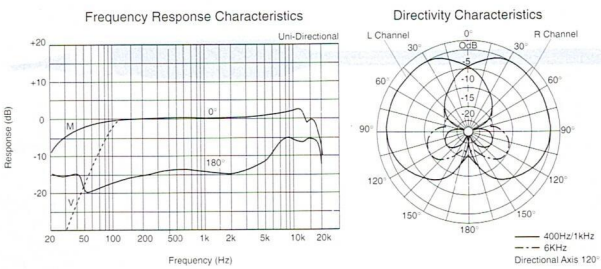
•Multi-purpose use •Low-cut filter •AA-size battery operation



ECM-999PR

MS Stereo Electret Condenser Microphone

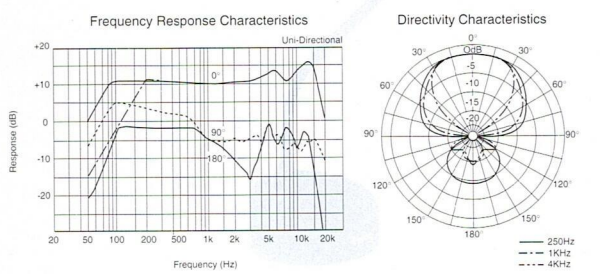
•Variable stereo angle (0° to 150°) •Low-cut filter •AA-size battery operation

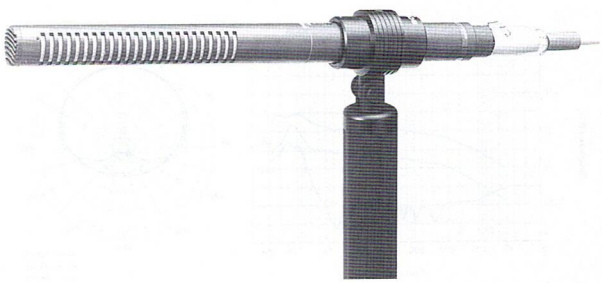


ECM-672

Electret Condenser Microphone

•Super-cardioid characteristics, rejecting indirect sound •2-way powering — internal battery (Approx. 3,000 hours of continuous operation) or external power supply (DC 48 V) •2-position low-cut filter •Suitable for mounting on Sony cameras and camcorders

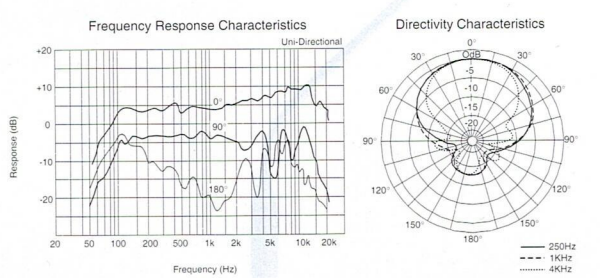




ECM-670

Electret Condenser Microphone

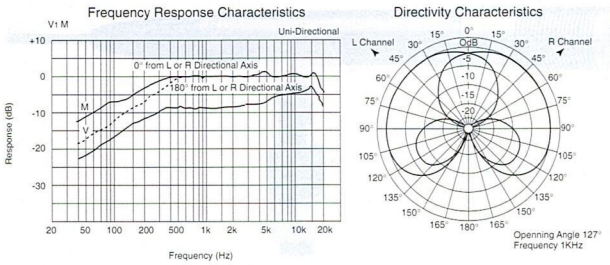
•Super-cardioid microphone with minimum sensitivity to ambient noise •Compact and light weight design •Suitable for mounting on Sony cameras and camcorders •External power supply (DC 12 V to 48 V)

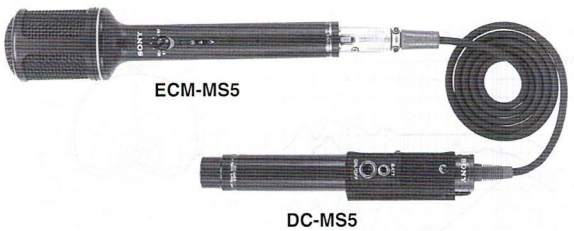


ECM-MS5

MS Stereo Electret Condenser Microphone

•Compact and light MS (Mid-Side) stereo microphone
•6-position stereo angle selector (0˚, 90˚ to 127˚)
•2-way powering — external power supply or battery operation with optional DC-MS5

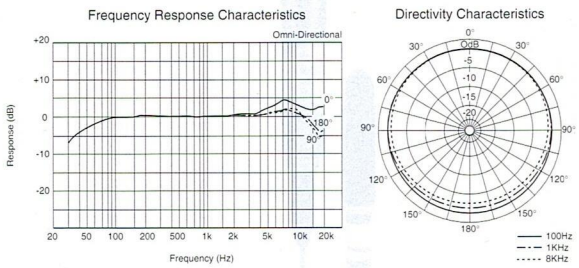




ECM-510

Electret Condenser Microphone

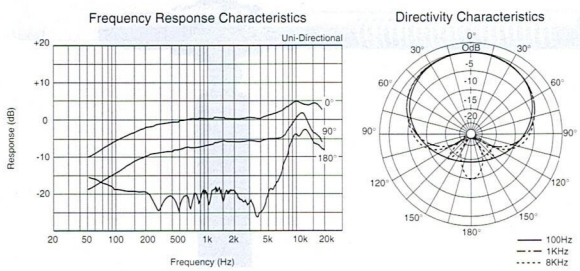
•Primarily for interview situations •Ultra slim and lightweight body •2-way powering — internal AA-size battery or external power supply (DC 12 V to 48 V)



ECM-530

Electret Condenser Microphone

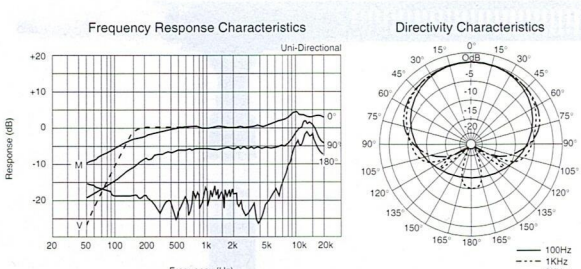
•A compact and high-quality table-top microphone •The goose-neck and extendable stem allow flexible microphone positioning for precise voice pick-up •2-way powering system — internal AA-size battery or external power supply (DC 12 V to 48 V)



ECM-531

Electret Condenser Microphone

•Ideally suited for conference and lecture applications
•Flexible goose-neck for microphone positioning
•Equipped with a low-cut switch
•External power supply (DC 12 V to 48 V)
•Directly installed in conference tables and lecterns via an XLR-3-12C type connector



Specifications

ECM-Series

		ECM-670	ECM-672	ECM-MS5	ECM-999PR	ECM-23F3PR	ECM-510	ECM-530	ECM-531
Capsule Type		Electret Condenser	Electret Condenser	Electret Condenser	Electret Condenser	Electre Condenser	Electret Condenser	Electre Condenser	Electret Condenser
Frequency Response		70 to 16,000 Hz	50 to 16,000 Hz	70 to 20,000 Hz	20 to 20,000 Hz	20 to 20,000 Hz	40 to 17,000 Hz	70 to 18,000 Hz	70 to 18,000 Hz
Directivity		UNI	UNI	UNI	UNI	UNI	OMNI	UNI	UNI
Effective Output Level at 1 kHz, (0 dBm=1 mW/1 Pa.)		-43.0 dBm	-42.0 dBm	-37.8 dBm (0°) -34.8 dBm (127°)	-51.0 dBm (120°)	-47.0 dBm	-50.0 dBm	-46.8 dBm	-42.8 dBm
Sensitivity (0 dB=1 V/1 Pa., at 1 kHz)		-44.0 dB ± 3.0 dB	-42.0 dB ± 2.0 dB	-40.0 dB ± 2.0 dB (0°) -37.0 dB ± 2.0 dB (127°)	-48.0 dB (120°)	-48.0 dB	-50.0 dB ± 2.0 dB	-49.0 dB ± 3.0 dB	-49.0 dB ± 3.0 dB
Output Impedance at 1 kHz (balanced)		200 Ω ± 20%	250 Ω ± 20%	150 Ω ± 20%	480 Ω ± 20%	200 Ω ± 20%	250 Ω ± 20%	150 Ω ± 20%	60 Ω ± 20%
Dynamic Range		≥ 101 dB	≥ 92 dB	≥ 108 dB	≥ 104 dB	≥ 110 dB	≥ 97 dB	≥ 95 dB	≥ 100 dB
Signal-to-noise Ratio (A weighted, 1 kHz, 1 Pa..)		≥ 70 dB	≥ 72 dB	≥ 74 dB (0°) ≥ 72 dB (127°)	≥ 68 dB (120°)	≥ 70 dB	≥ 65 dB	≥ 63 dB	≥ 64 dB
Inherent Noise (0 dB SPL = 2 x 10^{-5} Pa.)		≤ 24 dB SPL	≤ 22 dB SPL	≤ 20 dB SPL (0°) ≤ 22 dB SPL (127°)	≤ 26 dB SPL (120°)	≤ 24 dB SPL	≤ 29 dB SPL	≤ 31 dB SPL	≤ 30 dB SPL
Induction Noise from Ext. Magnetic Field (dB SPL/1 x 10^{-7} T) (0 dB SPL = 2 x 10^{-5} Pa.)		≤ 0 dB SPL	≤ 0 dB SPL	≤ 0 dB SPL	≤ 10 dB SPL	≤ 5 dB SPL	≤ 5 dB SPL	≤ 5 dB SPL	≤ 5 dB SPL
Wind Noise (0 dB SPL = 2 x 10^{-5} Pa.)		≤ 60 dB SPL	≤45 dB SPL	≤ 54 dB SPL	≤ 50 dB SPL	≤ 45 dB SPL	≤ 40 dB SPL	≤ 55 dB SPL	≤ 57 dB SPL
Max. Input Sound Pressure Level (0 dB SPL = 2 x 10^{-5} Pa.)		125 dB SPL	114 dB SPL	130 dB SPL	130 dB SPL	134 dB SPL	126 dB SPL	126 dB SPL	130 dB SPL
Tone Control	Low-cut	—	M,V	M,V	M,V	M,V	—	—	M,V
	High-cut	—	—	—	—	—	—	—	—
Power Supply	Battery power	—	IECR6 or LR6	DC-MS5 (Optional)	SUM-3 (NS)	SUM-3 (NS)	IECR6 or LR6	IECR6 or LR6	—
	Ext. power	O	O	O	—	—	O	O	O
Standard Operating Voltage	Battery	—	1.5 V	1.5 V/DC-MS5 (Optional)	1.5 V	1.5 V	1.5 V	1.5 V	—
	Ext. power	DC12-48	DC48	DC12-48	—	—	DC12-48	DC12-48	DC12-48
Current Drain	Battery	—	≤ 0.3 mA	≤ 1.75 mA x 2/DC-MS5 (DC12 V) (Optional)	≤ 11.0 mA	≤ 5 mA	≤ 0.23 mA	≤ 0.23 mA	—
	AC power	≤ 2.4 mA	≤ 0.5 mA	≤ 2 mA x 2x (DC48 V)	—	—	≤ 2 mA	≤ 2 mA	≤ 2 mA
Dimensions	mm	21 dia. x 226	24 dia. x 304	47.5 dia. x 212	40 dia. x 246	27 dia. x 190	Max. 23 dia. 8.5 dia. x 364	12 dia. x 326 to 448 86 dia. (Table Stand)	12 dia. x 326 to 482
	inch	$^{27}/_{32}$ dia. x 9	$^{31}/_{32}$ dia. x 12	1 $^{7}/_{8}$ dia. x 8 $^{3}/_{8}$	1 $^{5}/_{8}$ dia. x 9 $^{3}/_{4}$	1 $^{1}/_{6}$ dia. x 7 $^{1}/_{2}$	Max. $^{29}/_{32}$ dia. $^{11}/_{32}$ dia.x 14 $^{3}/_{8}$	$^{1}/_{2}$ dia. x 12 $^{7}/_{8}$ to 17 $^{3}/_{8}$ 3 $^{1}/_{2}$ dia. (Table stand)	$^{1}/_{2}$ dia .x 14 $^{1}/_{6}$ to 19
Mass *		165 g	230 g	215 g	366 g	215 g	125 g	325 g	130 g
		5.8 oz	8.1 oz	7.6 oz	13 oz	7.6 oz	4.4 oz	11.5 oz	4.6 oz
Supplied Accessories		Wind screen (x 1) Microphone holder (x 1) Microphone spacer (x 1) Stand adaptor (x 2)	Wind screen (x 1)	Wind screen (x 1) Microphone holder (x 1) Microphone cable (x 1) Stand adaptor (x 1)	Wind screen (x 1) Microphone holder (x 1) Microphone cable (x 1) Stand adaptor (x 2)	Wind screen (x 1) Microphone holder (x 2) Microphone cable (x 1) Stand adaptor (x 2) Carrying case (x 1)	Wind screen (x 1) Microphone holder (x 1) Stand adaptor (x 2)	Wind screen (x 1)	Wind screen (x 1)
Remarks		Short Shotgun	Short Shotgun	MS Stereo	MS Stereo	—	—	—	—

** Without the battery for condenser and electret condenser microphones.*

Specifications

ECM-Series

	ECM-670	ECM-672	ECM-MS5	ECM-999PR	ECM-23F3PR	ECM-510	ECM-530	ECM-531
Microphone Connector	XLR-3-12C type	XLR-3-12C type	XLR-5-12C type	XLR-5-12C type	XLR-3-12C type	XLR-3-12C type	XLR-3-12C type	XLR-3-12C type
Supplied Cable	—	—	XLR-5-11C type ↕ XLR-3-12C type	XLR-5-11C type ↕ XLR-3-12C type (x 2)	XLR-3-11C type ↕ Phone plug	—	—	—
Cable Length	—	—	3 m (9.8 feet)	2.5 m (8.2 feet)	6 m (19.7 feet)	—	2 m (6.6 feet)	—
Available Receptacle	XLR-3-11C type	XLR-3-11C type	XLR-3-11C type	XLR-3-11C type	Phone jack	XLR-3-11C type	XLR-3-11C type	XLR-3-11C type
External Power Supply (AC-148F) of Equivalent	Yes	Yes	Yes	No	No	Yes	Yes	Yes
Recommended Sony Battery	—	SUM-3 (NS)	LR6 (Alkaline)	SUM-3 (NS)	SUM-3 (NS)	SUM-3 (NS)	SUM-3 (NS)	—
Battery Life (Approx.)	—	3,000 H	20 H	80 H	150 H	5,000 H	5,000 H	—
Supplied Mic Holder	Yes	—	Yes	Yes	Yes	Yes	—	—
Stand Screw/ Mic Holder Screw	PF 1/2-inch thread	—	PF 1/2-inch thread	PF 1/2-inch thread	PF 1/2-inch thread	PF 1/2-inch thread	—	—
Supplied Stand Adaptor	NS 5/8-inch thread W 3/8-inch thread	—	NS 5/8-inch thread W 3/8-inch thread	NS 5/8-inch thread W 3/8-inch thread	NS 5/8-inch thread W 3/8-inch thread	NS 5/8-inch thread W 3/8-inch thread	—	—
Mounting on A-12 (Available screw PF 1/2-inch thread U 5/16-inch thread)	Yes	Yes	Yes	Yes	Yes	Yes	—	—
Mounting on A-25 (Available screw U 5/16-inch thread, PF 1/2-inch thread)	Yes	—	Yes	Yes	Yes	—	—	—
Mounting on A-25N (Available screw NS 5/8-inch thread)	Yes	—	Yes	Yes	Yes	—	—	—
Mounting on CRS-3P	Yes	Yes	Yes	No	Yes	Yes	—	—

ECM-44 Series

Lavalier Microphones

•8.5 mm dia. x 14.5 mm (11/32 inch dia. x 19/32 inch), 2 g (0.07 oz) microphone head •Excellent cost/performance ratio •AA-size battery operation

ECM-44B (Black)

•Complete with in-line battery unit

ECM-44BC (Black)

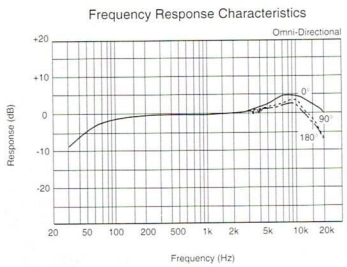
•Fitted with a 1.2 m cable terminating in a SMC9-4P connector for use with the Sony wireless transmitter

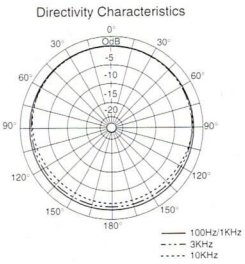
ECM-44BPT (Black)

•Pigtail connection, without battery unit or connector

ECM-44BMP (Black)

•Fitted with a 1.2 m cable terminating in a 3-pole mini plug for use with the Sony wireless transmitter





ECM-55 Series

Lavalier Microphones

•10.6 mm dia. x 21 mm (7/16 inch dia. x 27/32 inch), 6.5 g (0.2 oz) microphone head •Frequency response tailored for enhanced presence and improved voice quality in lavalier applications •2-way powering — AA-size battery or external power supply (DC 12 V to 48 V)

ECM-55B (Black)

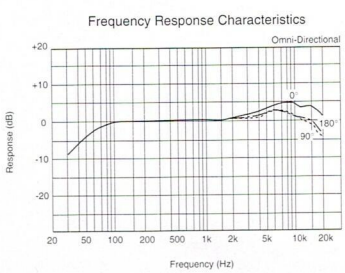
•Complete with in-line battery unit for 2-way powering

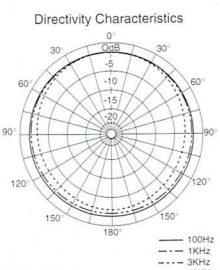
ECM-55BC (Black)

•Fitted with a 1.2 m cable terminating in a SMC9-4P connector for use with the Sony wireless transmitter

ECM-55BPT (Black)

•Pigtail connection, without battery unit or connector





ECM-66 Series

Lavalier Microphones

•10.6 mm dia. x 24.3 mm (7/16 inch dia. x 31/32 inch), 7 g (0.24 oz) microphone head •Designed for instrumental applications •2-way powering — AA-size battery or external power supply (DC 24 V to 48 V) •130 dB SPL max. input sound pressure level

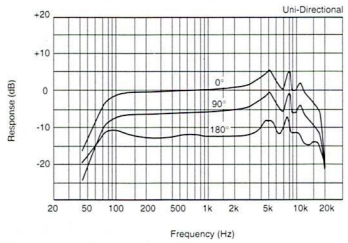
ECM-66B (Black)

•Complete with in-line battery unit for 2-way powering

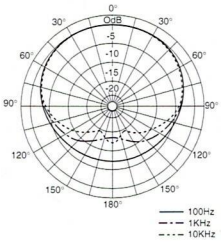
ECM-66BC (Black)

•Fitted with a 1.2 m cable terminating in a SMC9-4P connector for use with the Sony wireless transmitter

Frequency Response Characteristics



Directivity Characteristics



ECM-77 Series

Lavalier Microphones

•5.6 mm dia. x 12.5 mm (¼ inch dia. x ½ inch), 1.5 g (0.04 oz) microphone head •High performance, frequency response 40 Hz to 20,000 Hz •2-way powering — AA-size battery or external power supply (DC 12 V to 48 V)

ECM-77S (Silver)/ECM-77B (Black)

•Complete with in-line battery unit for 2-way powering

ECM-77SC (Silver)/ECM-77BC (Black)/ ECM-77FC (Beige Color Finish)

•Fitted with a 1.2 m cable terminating in a SMC9-4P connector for use with the Sony wireless transmitter

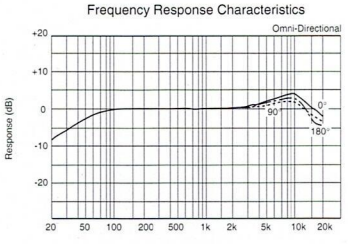
ECM-77BPT (Black)/ECM-77FPT (Beige Color Finish)

•Pigtail connection, without battery unit or connector

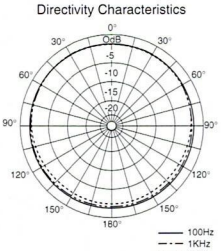
ECM-77BMP (Black)

•Fitted with a 1.2 m cable terminating in a 3-pole mini plug for use with the Sony wireless transmitter

Frequency Response Characteristics



Directivity Characteristics



AUDIO EQUIPMENT

ECM-121BMP

Lavalier Microphone

•8.5 mm dia. × 17.0 mm (11/32 inch dia. × 11/16 inch), 3 g (0.11 oz) microphone head
•Uni-directional
•Fitted with a 0.2 m cable terminating in a 3-pole mini plug for use with Sony wireless transmitter

ECM-122BMP

Lavalier Microphone

•8.5 mm dia. × 17.0 mm (11/32 inch dia. × 11/16 inch), 3 g (0.11 oz) microphone head
•Uni-directional
•Fitted with a 1.2 m cable terminating in a 3-pole mini plug for use with Sony wireless transmitter

ECM-166 Series

Lavalier Microphone

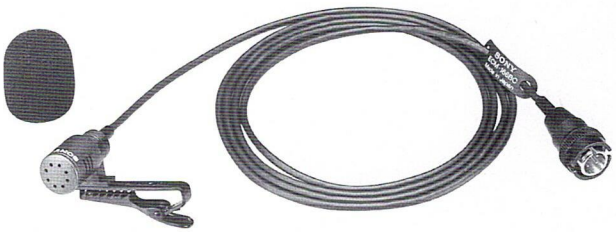
•12.5 mm dia x 23.5 mm (1/2 inch dia. x 15/16 inch), 3.5 g (0.12 oz) microphone head •Uni-directional

ECM-166BC

•Fitted with a 1.2 m cable terminating in a SMC9-4P connector for use with Sony wireless transmitter

ECM-166BMP

•Fitted with a 1.2 m cable terminating in a 3-pole mini plug for use with Sony wireless transmitter



ECM-310 Series

Headset Microphone

•Headset-style uni-directional microphone for sound reinforcement applications

ECM-310BC

•Fitted with a 1.2 m cable terminating in a SMC9-4P connector for use with the Sony wireless transmitter

ECM-310BMP

•Fitted with a 1.2 m cable terminating in a 3-pole mini plug for use with the Sony wireless transmitter

ECM-350BC

Headset Microphone

•Headset-style omni-directional microphone for TV/sound reinforcement applications •Fitted with a 1.2 m cable terminating in a SMC9-4P connector for use with the Sony wireless transmitter

Specifications

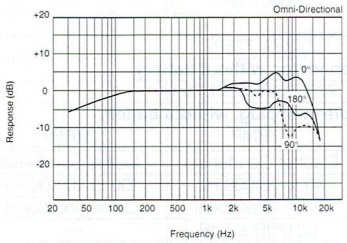
		ECM-44	ECM-55	ECM-66	ECM-77	ECM-121
Model Variations - Model name - Cable length - Output connector - Battery - Finish (B: Black, S: Silver, F: Beige)	Type A	**Standard type: 3.0 m (3.9 feet) cable terminating in an XLR-3-12C type connector, battery equipped**				
		44B	55B	66B	77S, 77B	—
	Type B	**Pig tail type: 3.0 m (3.9 feet) cable without connector, battery**				
		44BPT	55BPT	—	77BPT, 77FPT	—
	Type C	**SMC type: 1.2 m (3.9 feet) cable terminating in a SMC9-4P type connector, without battery**				
		44BC	55BC	66BC	77SC, 77BC, 77FC	—
	Type D	**BMP type: 1.2 m (3.9 feet)* cable terminating in a 3.5 mm dia. 3-pole mini plug, without battery**				
		44BMP	—	—	77BMP	121BMP
Capsule Type		Electret Condenser	Electret Condenser	Electret Condenser	Electret Condenser	Electret Condenser
Frequency Response		40 to 15,000 Hz	30 to 18,000 Hz	70 to 14,000 Hz	40 to 20,000 Hz	100 to 10,000 Hz
Directivity		Omni-directional	Omni-directional	Uni-directional	Omni-directional	Omni-directional
Sensitivity (0 dB=1 V/Pa, at 1 kHz)	Type A	-53.0 dB ±3 dB	-52.0 dB ±2 dB	-50.0 dB ±2 dB	-52.0 dB ±2 dB	—
	Type B, C, D	-40 dB (10 mV)	-38.5 dB (11.9 mV)	-36.5 dB (15 mV)	-39.0 dB (11.2 mV)	-41 dB (8.9 mV)
Output Impedance At 1 kHz	Type A	250 Ω ±20% (balanced)	100Ω ±20% (balanced)	100 Ω ±20% (balanced)	150 Ω ±20% (balanced)	—
	Type B, C, D	—	—	—	—	2.5 kΩ ±30% (unbalanced)
Dynamic Range		≥90 dB	≥98 dB	≥101 dB	≥90 dB	—
Signal-to-noise Ratio (A-weighted, 1 kHz, 1 Pa.)		≥62 dB	≥66 dB	≥65 dB	≥64 dB	—
Inherent Noise (0 dB SPL=2 x 10^{-5} Pa.)		≤32 dB SPL	≤28 dB SPL	≤29 dB SPL	≤30 dB SPL	—
Wind Noise (w/wind screen, at 2 m/s) (0 dB SPL=2 x 10^{-5} Pa.)		≤40 dB SPL	≤40 dB SPL	≤50 dB SPL	≤40 dB SPL	—
Induction Noise from External Magnetic Field (dB SPL/1 x 10^{-7} T) (0 dB SPL=2 x 10^{-5} Pa.)		≤5 dB SPL	≤5 dB SPL	≤5 dB SPL	≤5 dB SPL	—
Maximum Input Sound Pressure Level (0 dB SPL=2 x 10^{-5} Pa.)		122 dB SPL	126 dB SPL	130 dB SPL	120 dB SPL	—
Power Supply	Battery	SUM-3 (NS)(1.5 V)	SUM-3 (NS)(1.5 V)	SUM-3 (NS)(1.5 V)	SUM-3 (NS)(1.5 V)	
	Battery Life	Approx. 5000 H	Approx. 5000 H	Approx. 300 H	Approx. 5000 H	
	Ext. Power	—	DC 12 to 48 V	DC 24 to 48 V	DC 12 to 48 V	—
Normal Operating Voltage		Type A: DC 1.5 V, Type B, C, D: DC 3 V (supply range: DC 3 - 10 V)				DC 3 V (supply range: DC 3 - 10 V)
Current Drain		Less than 0.3 mA		Less than 3.5 mA	Less than 0.3 mA	Less than 0.4 mA
Dimensions	Microphone Head	8.5 mm dia. x 14.5 mm (11/32 inch dia. x 19/32 inch)	10.6 mm dia. x 21 mm (7/16 inch dia. x 27/32 inch)	10.6 mm dia. x 24.2 mm (7/16 inch dia. x 31/32 inch)	5.6 mm dia. x 12.5 mm (¼ inch dia. x ½ inch)	8.5 mm dia. x 17.0 mm (11/32 inch dia. x 11/16 inch)
	Power Unit	20.0 mm dia. x 126 mm (13/16 inch dia. x 5 inches)	20.0 mm dia. x 133 mm (13/16 inch dia. x 5 ¼ inches)	20.0 mm dia. x 163 mm (13/16 inch dia. x 6 ½ inches)	20.0 mm dia. x 133 mm (13/16 inch dia. x 5 ¼ inches)	—
Mass	Microphone Head	2 g (0.07 oz)	6.5 g (0.23 oz)	7 g (0.25 oz)	1.5 g (0.05 oz)	3 g (0.11 oz)
	Total	121 g (4.3 oz)	127 g (4.5 oz)	167 g (5.9 oz)	122 g (4.3 oz)	—
Supplied Accessories (S: Single type, V: Vertical type, M: Metal-mesh type, U: Urethane type)		S.H. holder clip (× 1) U. wind screen (× 1) Microphone case (× 1) Microphone case (× 1)	S.H. holder clip (× 1) S.V. holder clip (× 1) M wind screen (× 1) Microphone case (× 1)	S.H. holder clip (× 1) S.V. holder clip (× 1) U. wind screen (× 1) Microphone case (× 1)	S.H. holder clip (× 1) S.V. holder clip (× 1) M. wind screen (× 1)	Holder clip (× 1) U. wind screen (× 1)

**ECM-121BMP Cable length: 0.2 m (7 7/8 inches)*

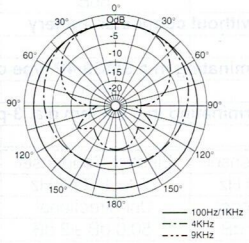
		ECM-122	ECM-166	ECM-310	ECM-350
Model Variations - Model name - Cable length - Output connector - Battery - Finish (B: Black, S: Silver, F: Beige)	Type A	**Standard type: 3.0 m (3.9 feet) cable terminating in an XLR-3-12C type connector, battery equipped**			
		—	—	—	—
	Type B	**Pig tail type: 3.0 m (3.9 feet) cable without connector, battery**			
		—	—	—	—
	Type C	**SMC type: 1.2 m (3.9 feet) cable terminating in a SMC9-4P type connector, without battery**			
		—	166BC	310BC	350BC
	Type D	**BMP type: 1.2 m (3.9 feet) cable terminating in a 3.5 mm dia. 3-pole mini plug, without battery**			
		122BMP	166BMP	310BMP	—
Capsule Type		Electret Condenser	Electret Condenser	Electret Condenser	Electret Condenser
Frequency Response		100 to 10,000 Hz	100 to 10,000 Hz	70 to 12,000 Hz	40 to 15,000 Hz
Directivity		Omni-directional	Uni-directional	Wide-cardioid	Omni-directional
Sensitivity (0 dB=1 V/Pa, at 1 kHz)	Type A	—	—	—	—
	Type B, C, D	-41 dB (8.9 mV)	-45 dB (5.6 mV)	-44 dB (6.3 mV) ±3 dB	-40 dB (10 mV) ±3 dB
Output Impedance At 1 kHz	Type A	—	—	—	—
	Type B, C, D	2.5 kΩ ±30% (unbalanced)	2.5 kΩ ±30% (unbalanced)	800 Ω ±30% (unbalanced)	2.5 kΩ ±30% (unbalanced)
Dynamic Range		—	≥96 dB	≥93 dB	≥100 dB
Signal-to-noise Ratio (A-weighted, 1 kHz, 1 Pa.)		—	≥60 dB	≥60 dB	≥62 dB
Inherent Noise (0 dB SPL=2 x 10^{-5} Pa.)		—	≤34 dB SPL	≤34 dB SPL	≤32 dB SPL
Wind Noise (w/wind screen, at 2 m/s) (0 dB SPL=2 x 10^{-5} Pa.)		—	—	≤63 dB SPL	≤40 dB SPL
Induction Noise from External Magnetic Field (dB SPL/1 x 10^{-7} T) (0 dB SPL=2 x 10^{-5} Pa.)		—	—	—	—
Maximum Input Sound Pressure Level (0 dB SPL=2 x 10^{-5} Pa.)		—	130 dB SPL	127 dB SPL	132 dB SPL
Power Supply	Battery				
	Battery Life				
	Ext. Power	—	—	—	—
Normal Operating Voltage		DC 3 V (supply range: DC 3 - 10 V)		DC 5 V (supply range: DC 3 - 10 V)	
Current Drain		Less than 0.4 mA		Less than 0.32 mA	Less than 0.3 mA
Dimensions	Microphone Head	8.5 mm dia. x 17.0 mm (11/32 inch dia. x 11/16 inch)	12.5 mm dia. x 23.5 mm (½ inch dia. x 15/16 inch)	10.0 mm dia. x 152 mm (13/32 inch dia. x 5/8 inch)	8.5 mm dia. x 15.6 mm (11/32 inch dia. x 5/8 inch)
	Power Unit	—	—	—	—
Mass	Microphone Head	3 g (0.11 oz)	3.5 g (0.12 oz)	—	—
	Total	—	—	46 g (17 oz)	44 g (1.6 oz)
Supplied Accessories (S: Single type, V: Vertical type, M: Metal-mesh type, U: Urethane type)		Holder clip (× 1) U. wind screen (× 1)	Holder clip (× 1) U. wind screen (× 1)	U. wind screen (× 1)	U. wind screen (× 1)

F-115
Dynamic Microphone

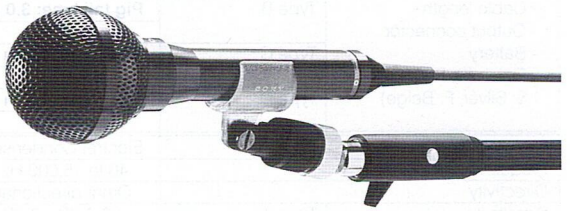
Frequency Response Characteristics



Directivity Characteristics

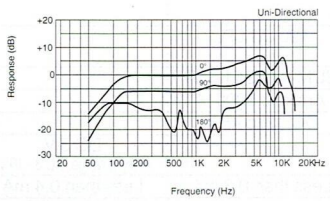


•Weather resistant for outdoor applications •Ideal for reporter use •Frequency response: 40 to 12,000 Hz

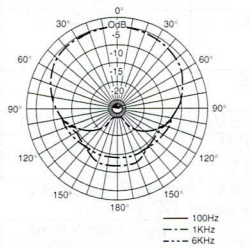


F-710
Dynamic Microphone

Frequency Response Characteristics



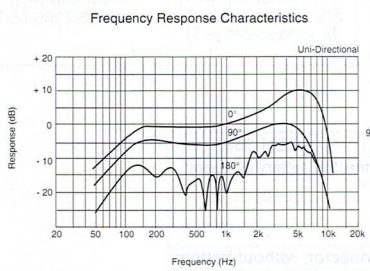
Directivity Characteristics



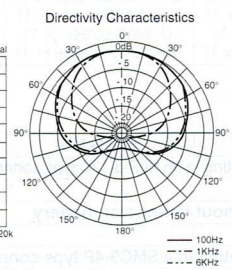
•For multi-purpose applications •Built-in TALK switch •High sensitivity with the Neodymium magnet •XLR-3-12C type connector •Frequency response: 70 to 15,000 Hz •Dimensions: 54 mm dia. x 177 mm (2 ¼ inches dia. x 7 inches) •Mass: 250 g (8.8 oz)

F-720
Dynamic Microphone

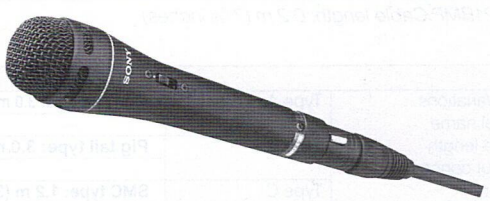
Frequency Response Characteristics



Directivity Characteristics

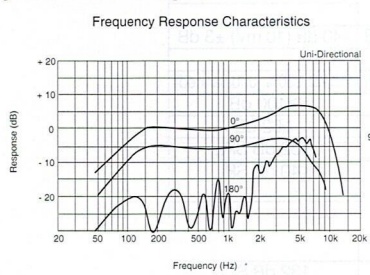


•For multi-purpose applications •Convenient TALK switch for turning on and off the microphone •Vibration proof capsule suspension •XLR-3-12C type connector •Frequency response: 50 to 13,000 Hz •Dimensions: 37.6 mm dia. x 160 mm (1 ½ inches dia. x 6 ⅜ inches) •Mass: 260 g (9.2 oz)

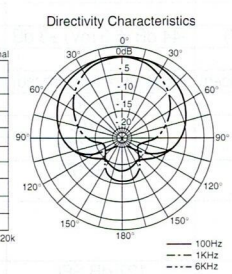


F-730
Dynamic Microphone

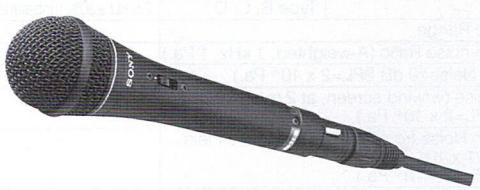
Frequency Response Characteristics



Directivity Characteristics

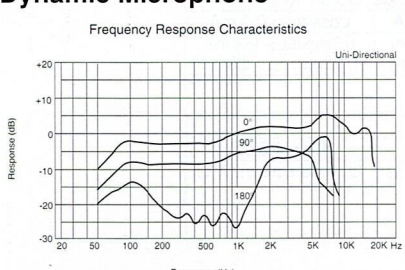


•For vocal applications •Convenient TALK switch for turning on and off the microphone •Vibration-proof capsule suspension •XLR-3-12C type connector •Frequency response: 50 to 13,000 Hz •Dimensions: 44.4 mm dia. x 166 mm (1 ¾ inches dia. x 6 ⅝ inches) •Mass: 250 g (8.8 oz)

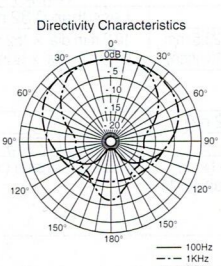


F-740
Dynamic Microphone

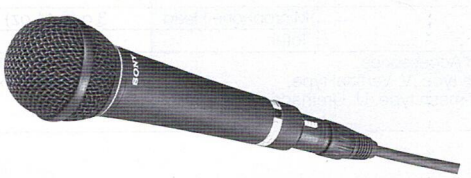
Frequency Response Characteristics



Directivity Characteristics

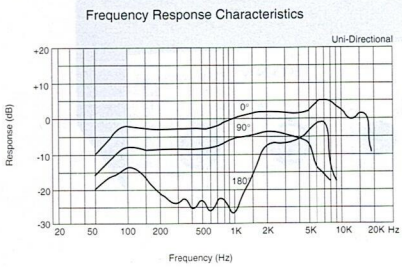


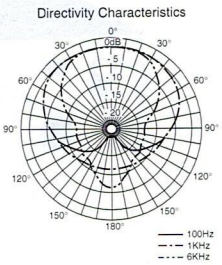
•For vocal and instrumental pick-up •Rugged capsules in a resilient body structure •Special AlNiCo Magnet •High quality CCAW (Copper Clad Alminium Wire) voice coil •XLR-3-12C type connector •Frequency response: 50 to 18,000 Hz •Dimensions: 51 mm dia. x 165 mm (2 ⅛ inches dia. x 6 ½ inches) •Mass: 290 g (10.2 oz)



F-780

Dynamic Microphone





•For vocal recording •Rugged capsules in a resilient body structure •Special AlNiCo Magnet •High quality edgewise winding CCAW (Copper Clad Alminium Wire) voice coil •XLR-3-12C type connector •Frequency response: 50 to 18,000 Hz •Dimensions: 51 mm dia. x 165 mm (2 ⅛ inches dia. x 6 ½ inches) •Mass: 290 g (10.2 oz)

Specifications

F-Series

	F-710	F-720	F-730	F-740	F-780	F-115*2 (CE7)	F-115*2 (CE)
Capsule Type	Dynamic	Dynamic	Dynamic	Dynamic	Dynamic	Dynamic	
Frequency Response	70 to 15,000 Hz	50 to 13,000 Hz	50 to 13,000 Hz	50 to 18,000 Hz	50 to 18,000 Hz	40 to 12,000 Hz	
Directivity	UNI	UNI	UNI	UNI	UNI	OMNI	
Effective Output Level at 1 kHz, (0 dBm=1 mW/1 Pa.)	-56.0 dBm	-60.0 dBm	-59.0 dBm	-56.0 dBm	-55.0 dBm	-57.8 dBm	
Sensitivity (0 dB=1 V/1 Pa., at 1 kHz)	-54.0 dB± 3.0 dB	-57.0 dB± 3.0 dB	-56.0 dB± 3.0 dB	-54.0 dB± 2.0 dB	-53.0 dB± 2.0 dB	-54.0 dB± 2.0 dB	
Output Impedance at 1 kHz (balanced)	400 Ω ±20%	500 Ω ±20%	500 Ω ±20%	400 Ω ±20%	400 Ω ±20%	600 Ω ±20%	
Induction Noise from Ext. Magnetic Field (dB SPL/1 x 10^{-7} T) (0 dB SPL + 2 x 10^{-5} Pa.)	≤ 5 dB SPL	≤ 10 dB SPL	≤ 10 dB SPL	≤ 5 dB SPL	≤ 5 dB SPL	≤ 5 dB SPL	
Wind Noise (0 dB SPL + 2 x 10^{-5} Pa.)	≤ 55 dB SPL	≤ 55 dB SPL	≤ 45 dB SPL	≤ 50 dB SPL	≤ 50 dB SPL	≤ 40 dB SPL	
Microphone Connector	XLR-3-12C type	XLR-3-12C type	XLR-3-12C type	XLR-3-12C type	XLR-3-12C type	—	
Supplied Cable	—	—	—	—	—	XLR-3-12C	XLR-3-11C
Cable Length	—	—	—	—	—	6 m (19.7 feet)	
Available Receptacle	XLR-3-11C type	XLR-3-11C type	XLR-3-11C type	XLR-3-11C type	XLR-3-11C type	XLR-3-11C type	XLR-3-12C type
Supplied Mic Holder	Yes	Yes	Yes	Yes	Yes	Yes	
SAD-700 Optional Mic Holder	Yes	—	—	Yes	Yes	—	
Stand Screw/ Mic Holder Screw	PF 1/2-inch thread	PF 1/2-inch thread	PF 1/2-inch thread	PF 1/2-inch thread	PF 1/2-inch thread	PF 1/2-inch thread	
Supplied Stand Adaptor	NS 5/8-inch thread W 3/8-inch thread	NS 5/8-inch thread W 3/8-inch thread	NS 5/8-inch thread W 3/8-inch thread	NS 5/8-inch thread W 3/8-inch thread	NS 5/8-inch thread W 3/8-inch thread	NS 5/8-inch thread W 3/8-inch thread	W 3/8-inch thread
Mounting on A-12 (Available screw PF 1/2-inch thread U 5/16-inch thread)	Yes	Yes	Yes	Yes	Yes	Yes	
Mounting on A-25 (Available screw U 5/16-inch thread PF 1/2-inch thread)	Yes	Yes	Yes	Yes	Yes	Yes	
Mounting on A-25N (Available screw NS 5/8-inch thread)	Yes	Yes	Yes	Yes	Yes	Yes	
Mounting on CRS-3P	Yes	Yes	Yes	Yes	Yes	Yes	
Dimensions mm	54 dia. x 177	37.6 dia. x 160	44.4 dia. x 166	51 dia. x 165	51 dia. x 165	Max. 30 dia. , 24.6 dia. x 173	
Dimensions inch	2 1/4 dia. x 7	1 1/2 dia. x 6 3/8	1 3/4 dia. x 6 5/8	2 1/8 dia. x 6 1/2	1 1/8 dia. x 6 1/2	31/32 dia. x 6 7/8	
Mass*1	250 g	260 g	250 g	290 g	290 g	270 g	
	8.8 oz	9.2 oz	8.8 oz	10.2 oz	10.2 oz	9.5 oz	
Supplied Accessories	Microphone holder (x 1) Stand adaptor (x 2)	Microphone holder (x 1) Stand adaptor (x 2)	Microphone holder (x 1) Stand adaptor (x 2)	Microphone holder (x 1) Stand adaptor (x 2)	Microphone holder (x 1) Stand adaptor (x 2)	Microphone holder (x 1) Stand adaptor (x 2) Wind screen (x 1) Microphone case (x 1)	
Remarks	—	—	—	—	—	—	

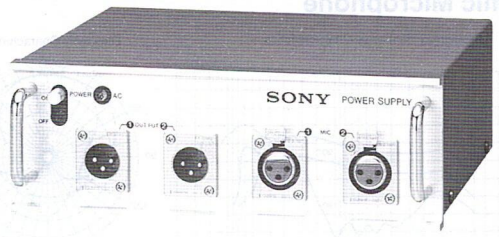
*1 *Without the battery for condenser and electret condenser microphones.*

*2 *The F-115(CE7) is suitable for use with TC-D5 PROII. The F-115(CE) is suitable for use with TC-D5 PRO.*

AC-148F

AC Power Supply

•System: 2-channel external power supply •Power requirements: AC 220 to 240 V, 50/60 Hz •Output voltage: DC 48 V •Dimensions: 201 (W) x 74 (H) x 169 (D) mm (8 x 3 x 6 ¾ inches) • Mass: 2 kg (4 lb 7 oz)



A-12

Table Stand

•Available screw: U5/16-inch thread
PF½-inch thread
•Mass: 1.4 kg (3 lb 1 oz)

A-25

Table Stand

•Available screw: U5/16-inch thread
PF½-inch thread
•Mass: 1.0 kg (2 lb 3 oz)

A-25N

Table Stand

•Available screw: NS⅝-inch thread
•Mass: 1.0 kg (2 lb 3 oz)

SAD-26

Microphone Stand Pole

•Available screw: U5/16-inch thread
PF½-inch thread (male)
PF½-inch thread (female)
•Height: 120 mm (4 ¾ inches)

SAD-28

Shock-mounted Adaptor

• Available screw: U5/16-inch thread
PF1/2-inch thread (male)
PF1/2-inch thread (female)

EC-10XLR2/5XLR2

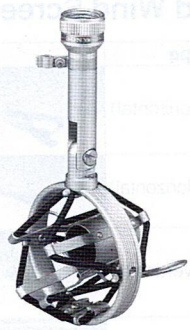
Microphone Cable

• Cable length: 10 m (32.8 feet) or 5 m (16.4 feet)
• Connectors: XLR-3-11C type ↔ XLR-3-12C type

CRS-3P

Cradle Suspension

•Available screw: PF1/2-inch thread •Supplied stand screw adaptor: NS5/8-inch thread •Grip: 19 to 24 mm dia. (3/4 to 31/32 inch dia.) •Mass: 150 g (5.3 oz)



SAD-700

Microphone Holder

•Available screw: PF1/2-inch thread
•Grip: 24 mm dia. (31/32 inch dia.)
•Mass: 70 g (2.5 oz)

B-305B

Boom Stand

•Available screw: PF1/2-inch thread, U5/16-inch thread
•Supplied stand screw adaptor: NS5/8-inch thread, W3/8-inch thread •Boom length: 828 mm (32 5/8 inches) •Stand height: 980 to 1500 mm (38 5/8 to 59 1/8 inches) •Mass: 4.6 kg (10 lb 2 oz)

B-500

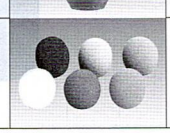
Floor Stand

•Available screw: PF1/2-inch thread, U5/16-inch thread
•Supplied stand screw adaptor; NS5/8-inch thread, W3/8-inch thread •Pole length: 880 to 1530 mm (34 3/4 x 60 1/4 inches) w/o stand adaptor •Mass: 4.6 kg (10 lb 2 oz)

Batteries

Sony	IEC	MEDIA No.	Eveready	Voltage
S-006P (U)	6F-22	1604	216	9 V
006P (Alkaline)	—	1604A	522	9 V
SUM-1(NS)	P20	13D	1250	1.5 V
SUM-3(NS)	R6P	15D	1215	1.5 V
AM3	LR6	15A	E91	1.5 V
3CR-MIC	—	—	—	9 V

Holder Clips and Wind Screens

	Type		Finish	ECM-77	ECM-66	ECM-55	ECM-44	Remarks
Holder Clip	Single (Horizontal)		Black	SAD-H77B	SAD-H55B	SAD-H55B	SAD-H44B	10 pcs in each package
	Double (Horizontal)		Black	SAD-W77B	SAD-W55B	—	—	6 pcs in each package
	Single (Vertical)		Black	SAD-V77B	SAD-V55B	—	—	10 pcs in each package
	Safety Pin Type		Silver type	SAD-S77	SAD-S55	SAD-S55	—	6 pcs in each package
Power Supply Holder			Silver type	SAD-B100		3 pcs in a package		
Wind Screen	Metal		Silver type	AD-R77S	—	—	—	6 pcs in each package
			Black	AD-R77B	—	AD-R55B	—	
	Urethane		Black	—	AD-R66B	—	AD-R44B	12 pcs in each package
	Urethane		6 colors	AD-C77	AD-C66	AD-C55	—	12 pcs in each package (6 colors x 2 pcs)

AUDIO EQUIPMENT

WRT-830A

UHF Synthesized Wireless Microphone

•High quality sound for vocals •PLL synthesized control transmission •Approx.8 hours of continuous operation is provided by 2 AA-size (LR6) alkaline batteries. The battery status can be shown on the built-in LCD •An ON/OFF power switch inside the body for free from misoperation, preventing a user from accidentally turning-off the switch during operation •Low handling noise due to the electret capsule •Selectable RF Output 10 mW or 2.5 mW •Easy-to-read LCD indication

WRT-810A

UHF Synthesized Wireless Microphone

•PLL synthesized control transmission •Approx. 8 hours of continuous operation is provided by 2 AA-size (LR6) alkaline batteries. The battery status can be shown on the built-in LCD. •Uni-directional dynamic capsule •Easy-to-read LCD display •Built-in talk switch •Selectable RF output 10 mW or 2.5 mW

WRT-807A

UHF Synthesized Dynamic Wireless Microphone

•High sound quality for vocals - powerful, crisp and clean sound as well as presence in the low and mid frequency range •Dynamic microphone capsule which is employed in the Sony F-780 professional vocal microphone •LCD for display of channels, attenuator and accumulated operating hours •Up to 5 hours of continuous operation with a single AA-size (LR6) battery •10 mW RF power output •Battery alarm transmitted to compatible receivers •Newly-developed lockable power switch to prevent accidental operation

WRT-822A

UHF Synthesized Transmitter

•PLL synthesized control transmission •Approx.8 hours continuous operation with 2 AA-size (LR6) alkaline batteries •Compact and lightweight design, measuring 63 (W) x 103 (H) x 17 (D) mm (2 ½ x 4 ⅛ x 11/18 inches) •Easy-to-read LCD for comprehensive system information such as battery status, accumulated working time and frequency level •Lavalier microphones capability

WRT-805A

UHF Synthesized Body Pack Transmitter

•Smoothly tapered body pack with compact, lightweight design •Battery alarm transmitted to compatible receivers •LCD for display of channel, attenuator and accumulated operating hours •Up to 6 hours of continuous operation with a single AA-size (LR6) alkaline battery •10 mW RF power output •3-pole mini jack with a lock mechanism for secure lavalier cable clamping •Switchable -40 dB/-60 dB input level and PHASE switches for guitar and lavalier microphone •Microphone options: GC-0.7MP Guitar Cable, ECM-44BMP/ECM-77BMP/ECM-121BMP/ECM-122BMP/ECM-166BMP Electret Condenser Microphone and ECM-310BMP Electret Condenser Headset Microphone

WRT-808A

UHF Synthesized Transmitter

•Plug-on transmitter - converts a microphone to a wireless microphone •Fitted with an XLR connector •Compact and lightweight body, providing balanced handling •Durable connecting mechanism for dependable operation •Switchable RF power output, 50 mW for a longer working distance or 10 mW for multi-channel operation •Variable input attenuation, 0 dB to 50 dB •Battery alarm transmitted to compatible receivers •LED for AF/Peak, battery indication •Up to 4 hours continuous operation with two AA-sized (LR6) alkaline batteries

*Not available in some areas.

ECM-77BC

Lavalier Microphone

•5.6 mm dia. x 12.5 mm (¼ inch dia. x ½ inch), 1.5 g (0.04 oz) microphone head •High performance, 40 Hz to 20,000 Hz frequency response •SMC9-4P connector to interface with WRT-822A UHF Synthesised Transmitter

ECM-310BC

Electret Condenser Microphone

•Headset-style microphone for sound reinforcement applications •Fitted with a wide-cardioid microphone, which provides crisp and clear sound while isolating desired sound from surrounding ambience •Designed for use with the WRT-822A UHF Synthesized Transmitter (also suitable for use with the WRT-860A model) •Adjustable hinge and goose-neck for a wide range of adjustment •Unobtrusive, anti-slide headband •SMC9-4P connector to interface with WRT-822A UHF Synthesised Transmitter

ECM-350BC

Electret Condenser Microphone

•Headset-style microphone for TV/sound reinforcement applications •Fitted with an omni-directional microphone, which reduces pop-noises and allows optimum sound pick-up and enhanced intelligibility under almost any situation •Designed for use with the WRT-860A UHF Synthesized Transmitter (also suitable for use with the WRT-822A model) •Lightweight and with flexible microphone positioning for optimum vocal pick-up •Unobtrusive, anti-slide headband •SMC9-4P connector to interface with WRT-822A UHF Synthesised Transmitter

ECM-44BMP

Lavalier Microphone

•8.5 mm dia. × 14.5 mm (11/32 inch dia. × 19/32 inch), 2 g (0.07 oz) microphone head •Omni-directional •For use with WRT-805A UHF Synthesized Transmitter

ECM-77BMP

Lavalier Microphone

•5.6 mm dia. × 12.5 mm (¼ inch dia. × ½ inch), 1.5 g (0.05 oz) microphone head •Omni-directional •For use with WRT-805A UHF Synthesized Transmitter

ECM-121BMP

Lavalier Microphone

•8.5 mm dia. × 17.0 mm (11/32 inch dia. × 11/16 inch), 3 g (0.11 oz) microphone head •Uni-directional •For use with WRT-805A UHF Synthesized Transmitter

ECM-122BMP

Lavalier Microphone

•8.5 mm dia. × 17.0 mm (11/32 inch dia. × 11/16 inch), 3 g (0.11 oz) microphone head •Uni-directional •For use with WRT-805A UHF Synthesized Transmitter

ECM-166BMP

Lavalier Microphone

•12.5 mm dia. × 23.5 mm (1/2 inch dia. × 15/16 inch), 3.5 g (0.12 oz) microphone head •Uni-directional •For use with WRT-805A UHF Synthesized Transmitter

ECM-310BMP

Headset Microphone

•Fitted with a wide-cardioid microphone for sensitivity and noise rejection •Designed for use with WRT-805A UHF Synthesized Transmitter •Adjustable hinge and goose-neck for a wide range of adjustment •Unobtrusive, anti-slide headband •For use with WRT-805A UHF Synthesized Transmitter

Specifications

	WRT-830A	WRT-810A	WRT-807A
Oscillator	Crystal controlled PLL synthesizer	Crystal controlled PLL synthesizer	Crystal controlled PLL synthesizer
Type of Emission	110KF3E	110KF3E	110KF3E
RF Power Output	10 mW or 2.5 mW selectable	10 mW or 2.5 mW selectable	10 mW (50 Ω load)
Antenna	¼ wave length whip antenna	¼ wave length whip antenna	¼ wave length wire antenna
Reference Deviation	±5 kHz	±5 kHz	±5 kHz (94 dB SPL*1, 1 kHz)
Frequency Response	70 to 15,000 Hz	100 to 13,000 Hz	50 to 15,000 Hz
Signal-to-noise Ratio	60 dB (A-weighted)	60 dB (A-weighted)	More than 60 dB (A-weighted)
Attenuator Adjustment Range (PAD)	12 dB, variable in 3 dB steps	21 dB, variable in 3 dB steps	21 dB, variable in 3 dB steps
Max. Input Sound Pressure Level (0 dB SPL=2 x 10^{-5} Pa.)	142 dB SPL (w/12 dB attenuator)	151 dB SPL (w/21 dB attenuator)	151 dB SPL (at 1 kHz)
Max. Input Level (0 dBV=1 Vr.m.s.)	—	—	—
Reference Input Level (0 dBV=1 Vr.m.s.)	—	—	—
Input Connector	—	—	—
Microphone Capsule	Electret condenser	Dynamic	Dynamic
Directivity	Uni-directional	Uni-directional	Uni-directional
Operating Voltage	DC 3 V, AA-size (LR6) alkaline battery (× 2)	DC 3 V, AA-size (LR6) alkaline battery (× 2)	DC 1.5 V, AA-sized (LR6) alkaline battery (× 1)
Power Consumption	170 mA	170 mA	170 mA
Battery Life	Approx. 8 hours w/(LR6) AA-size alkaline battery (× 2)	Approx. 8 hours w/(LR6) AA-size alkaline battery (× 2)	Approx. 5 hours w/ (LR6) AA-size alkaline battery (× 1)
Dimensions (W × H × D)	48 mm dia. × 238 mm (1 15/16 inches dia. × 9 3/8 inches)	48 mm dia. × 238 mm (1 15/16 inches dia. × 9 3/8 inches)	51 mm × 238 mm (2 1/8 × 9 3/8 inches)
Mass	300 g (10.5 oz) w/batteries	300 g (10.5 oz) w/batteries	440 g (15.5 oz) w/battery
Supplied Accessories	Microphone holder (PF½-inch thread, × 1) U: Stand screw adaptor (PF½ to NS5/8, × 1) AU: Stand screw adaptor (PF½ to NS5/8, × 1), Stand screw adaptor (PF½ to W3/8, × 1)	Microphone holder (PF½-inch thread, × 1) U: Stand screw adaptor (PF½ to NS5/8, × 1) AU: Stand screw adaptor (PF½ to NS5/8, × 1), Stand screw adaptor (PF½ to W3/8, × 1)	Microphone holder (PF½-inch thread, × 1) U: Stand screw adaptor (PF½ to NS5/8, × 1) AU, CE: Stand screw adaptor (PF½ to W3/8, × 1) Channel color seal (CE, x 1)

	WRT-822A	WRT-805A	WRT-808A
Oscillator	Crystal controlled PLL synthesizer	Crystal controlled PLL synthesizer	Crystal controlled PLL synthesizer
Type of Emission	110KF3E	110KF3E	110KF3E
RF Power Output	10 mW	10 mW (50 Ω load)	50 mW or 100 mW selectable
Antenna	¼ wave length whip antenna	¼ wave length wire antenna	Internal antenna
Reference Deviation	±5 kHz (-60 dBV*2, 1 kHz input)	±5 kHz (-60 dBV*2, 1 kHz Input)*3	±5 kHz (-60 dBV*2, 1 kHz Input)*3
Frequency Response	70 to 15,000 Hz	70 to 15,000 Hz	70 to 15,000 Hz
Signal-to-noise Ratio	60 dB (A-weighted)	57 dB (A-weighted)	More than 57 dB (A-weighted)
Attenuator Adjustment Range (PAD)	0 to 21 dB, variable in 3 dB steps	21 dB, variable in 3 dB steps	0 to 50 dB, continuous
Max. Input Sound Pressure Level (0 dB SPL=2 x 10^{-5} Pa.)	—	—	—
Max. Input Level (0 dBV=1 Vr.m.s.)	+7 dBV	+17 dBV (-40 dBV position, attenuator 21 dB)	26 dBV*2, *4
Reference Input Level (0 dBV=1 Vr.m.s.)	-60 dBV (at attenuator 0 dB)	-40 dBV (±16 kHz deviation at 1 kHz modulation)*5 -60dBV (±5 kHz deviation at 1 kHz modulation)*5	—
Input Connector	SMC9-4S	3.5 mm (5/32 inch) dia. 3-pole mini phone jack with lock mechanism	XLR-3-11 type
Microphone Capsule	—	—	—
Directivity	—	—	—
Operating Voltage	—	DC 1.5 V, AA-size (LR6) alkaline battery (× 1)	3 V, AA-size (LR6) alkaline battery (× 2)
Power Consumption	175 mA	170 mA	170 mA
Battery Life	Approx. 8 hours w/(LR6) AA-size alkaline battery (× 2)	Approx. 6 hours w/(LR6) AA-size alkaline battery (× 1)	Approx. 4 hours w/(LR6) AA-size alkaline battery (× 2)
Dimensions (W × H × D)	63 × 103 × 17 mm (2 1/2 × 4 1/8 × 11/16 inches)	58 × 93 × 21 mm (2 3/8 × 3 3/4 × 27/32 inches)	40 × 40 × 108 mm (1 5/8 × 1 5/8 × 4 3/8 inches)
Mass	145 g (5.1 oz) w/batteries	100 g (3.5 oz) w/battery	175 g (6.18 oz) w/battery
Supplied Accessories	Soft case (× 1)	Channel color seal (× 1, CE)	Soft case with a belt clip (× 1)

*1 *0 dB SPL=2 x 10^{-5} Pa.*
*2 *0 dBV=1 Vr.m.s.*
*3 *Attenuator level: -60 dB position*
*4 *Attenuator level: -10 dB position*
*5 *Input level switch: -60 dBV position at attenuator 0 dB*

For specifications of lavalier microphones, please refer to page 299.

WRR-802A

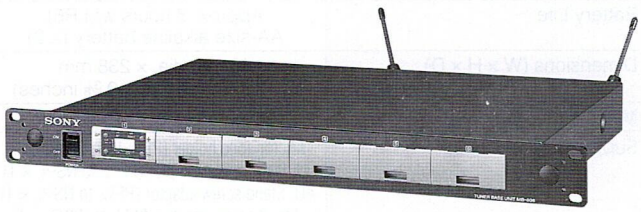
UHF Synthesized Diversity Tuner

•Single-channel Space Diversity Tuner •Half 19-inch rack width and 1U height •AF, RF, and battery alarm indication by both LED and LCD to double check operating condition (channel indication by LCD only) •Output volume control •Supplied portable front-mounted passive antennas •Two types of output connectors
- TRS Phone Balanced connector (6.3 mm dia.), -20 dBm for LINE
- XLR connector, -58 dBm for MIC or -20 dBm for LINE

MB-806A

Tuner Base Unit

•Modular design, 1U height 19-inch rack •Accommodates up to six WRU-806A for up to six simultaneous channels of operation •Up to 11 simultaneous channels on a single pair of AN-820A Active Antennas with the optional WD-820A Antenna Divider •Up to 19 simultaneous channels on a single pair of AN-820A Active Antennas with the optional WD-820A Antenna Divider •XLR output connectors for each tuner and mix output •Selectable output level, -58 dBm for MIC or -20 dBm for LINE •Space Diversity Reception for dependable RF reception •AF, RF, and battery alarm indication by both LED and LCD to double check operating condition (channel indication by LCD only) •Auto channel assignment of additional receiver modules for instant programming of interference-free multi-channel operation •RF input attenuator (10 dB/0 dB) switch •Supplied passive antennas for rear mounting (with provision for front mounting)



w/optional WRU-806A UHF Synthesized Tuner Unit installed

WRU-806A

UHF Synthesized Tuner Unit

•Dedicated plug-in diversity receiver module for MB-806A
•Space Diversity Reception for dependable RF reception

WRR-805A

UHF Synthesized Portable Tuner

•Compact, lightweight portable tuner for a wide variety of camcorders that have a stereo mini jack •Flexible mounting position and direction for secure operation •RF, battery alarm indication by both LED and LCD to double check operating condition (AF and channel indication by LCD only) •LCD for display of operating channel, AF, RF, accumulated operating hours, the tuner's battery status •LED for RF condition, the transmitter's battery alarm indication •Convenient headphone monitoring with volume control •3-pole mini jack with a lock mechanism for secure camera cable clamping •Up to 6 hours of continuous operation with two AA-size (LR6) alkaline batteries •RF Muting function

WRR-810A

UHF Synthesized Tuner

•Compact, lightweight and easy to mount on Betacam SP camcorders •Approx. 6 hours of continuous operation by 2 AA-size (LR6) alkaline batteries •The battery status can be shown on the built-in LCD. •AF monitoring function
•Switchable muting RF level 15 dBμ

WRR-855A

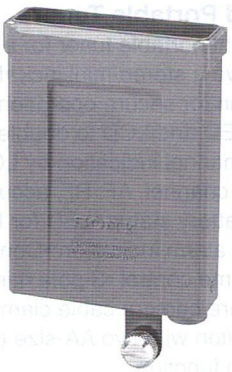
UHF Synthesized Diversity Tuner

•Slot-in type portable tuner designed for use with Sony Betacam SX camcorders •Water proof structure
•Compact design and lightweight only 280 g (11 oz) •Space diversity system for highly stable signal reception •Pre-programmed, intermodulation-free, groups of frequencies stored in CPU for simultaneous multi-channel operation
•Tone-squelch circuit for noise elimination •LED indications of received RF signal level and audio output
•LCD shows
– wireless microphone operating channel and group
– error messages
•Powered from camcorder
– direct interfacing with Sony Betacam SX camcorders
– via optional mounting adaptor (BTA-801) with other Sony camcorders
•Muting RF level 10 dBμ or OFF switchable

BTA-801

Portable Tuner Mount Adaptor

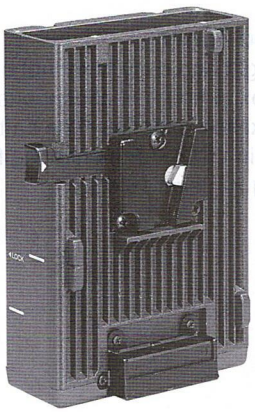
•Mounting adaptor for a WRR-855A to fit on a Sony camcorder •Provides DC power supply from a camcorder to the WRR-855A by incorporating a DC-DC converter



CA-WRR855

Camera Adaptor

•Mounting adaptor that enables a WRR-855A to be mounted on Sony DSR-300/500WS DVCAM™ camcorders
•Direct audio/power connection interfaces



DC-WL800

DC Pack Unit

•The DC-WL800 can be used to power a WRR-810A Portable Receiver, the attached power cable of this DC pack making it very convenient to mount the receiver onto any Betacam camcorder •As an alternative to operating a WRT-860A, or WRT-822A, on batteries, the battery case can be removed and replaced by a DC-WL800 DC Pack which then allows operation from an external DC 12 V source

Specifications

	WRR-802A	MB-806A	WRU-806A
Oscillator	Crystal controlled PLL synthesizer	—	Crystal controlled PLL synthesizer
Type of Reception	110KF3E	—	110KF3E
Reference Deviation	±5 kHz	—	±5 kHz
Selectivity	More than 60 dB	—	More than 60 dB
Spurious Rejection Ratio	More than 70 dB	—	More than 70 dB
Frequency Range	100 to 15,000 Hz	—	100 to 15,000 Hz
Signal-to-noise Ratio	More than 60 dB (A-weighted)	—	More than 60 dB (A-weighted)
Harmonic Distortion	Less than 1.0%	—	Less than 1.0%
RF Muting Level	30 dBμ	—	30 dBμ
Audio Output Level	-20 dBm/-58 dBm (±5 kHz deviation at 1 kHz modulation)	-20 dBm/-58 dBm (±5 kHz deviation at 1 kHz modulation)	—
Audio Output Connector	XLR and TRS phone, 6.3 mm (1/4 inch) dia., balanced	XLR type	—
Antenna Connector	BNC-R type	BNC-R type	—
Headphone Output Connector	—	—	—
Power Requirements	—	U: AC 120V, 60 Hz CE: AC 230 V, 50 Hz	—
Power Consumption	—	30 W	—
Operating Voltage	DC 9 V	—	DC 9 V
Current Consumption	600 mA	—	225 mA
Battery Life	—	—	—
Dimensions (W × H × D)	218 × 44 × 210 mm (8 5/8 × 1 3/4 × 8 3/8 inches)	482 × 44 × 300 mm (19 × 1 3/4 × 11 7/8 inches)	57 × 26 × 122 mm (2 1/4 × 1 1/16 × 4 7/8 inches)
Mass	1.6 kg (3 lb 8 oz)	3.6 kg (7 lb 15 oz)	160 g (5.7 oz)
Supplied Accessories	AC power adaptor (× 1) Antenna (× 2) Channel color seal (CE, × 1)	AC power cord (× 1) Antenna (× 2)	Channel color seal (CE, × 1)

	WRR-805A	WRR-810A	WRR-855A
Oscillator	Crystal controlled PLL synthesizer	Crystal controlled PLL synthesizer	Crystal controlled PLL synthesizer
Type of Reception	110KF3E	110KF3E	110KF3E
Reference Deviation	±5 kHz	±5 kHz	±5 kHz
Selectivity	More than 60 dB	More than 60 dB	More than 60 dB
Spurious Rejection Ratio	More than 70 dB	More than 50 dB	More than 80 dB
Frequency Range	100 to 15,000 Hz	100 to 15,000 Hz	100 to 15,000 Hz
Signal-to-noise Ratio	More than 30 dB (A-weighted RF input: 10 dBμ) More than 60 dB (A-weighted RF input: 60 dBμ)	More than 60 dB (A-weighted)	More than 60 dB (A-weighted)
Harmonic Distortion	Less than 1.0%	Less than 1.0%	Less than 1.0%
RF Muting Level	15 dBμ ±5 dBμ	15 dBμ	15 dBμ or OFF selectable
Audio Output Level	-58 dBm (±5 kHz deviation at 1 kHz modulation)	-58 dBm	-40 dBm
Audio Output Connector	3.5 mm (5/32 inch) dia. 3-pole mini phone jack with lock mechanism, balanced	SMC9-4S	D-sub 15-pin
Antenna Connector	—	BNC-R type	BNC-R type
Headphone Output Connector	3.5 mm (5/32 inch) dia. 3-pole mini phone jack	—	—
Power Requirements	—	—	—
Power Consumption	—	—	—
Operating Voltage	DC 3 V, AA-size (LR6) alkaline battery (× 2)	DC 3 V, AA-size (LR6) alkaline battery (× 2)	DC 7 V
Current Consumption	170 mA	200 mA	180 mA
Battery Life	Approx. 6 hours w/(LR6) AA-size alkaline battery (× 2)	Approx. 6 hours w/(LR6) AA-size alkaline battery (× 2)	—
Dimensions (W × H × D)	44 × 121 × 24 mm (1 3/4 × 4 7/8 × 31/32 inches)	63 × 120 × 17 mm (2 1/2 × 4 3/4 × 11/16 inches)	88 × 119 × 31 mm (3 1/2 × 4 3/4 × 11/16 inches)
Mass	140 g(4.9 oz) w/battery	220 g (7 oz) w/battery	280 g(9.9 oz)
Supplied Accessories	Attachment case with a belt clip (× 1) Output cable (× 1)	1/4 wave length antenna (× 2)	1/4 wave length antenna (× 2) Output cable (× 2) Holder kit for Betacam camcorder (× 1)

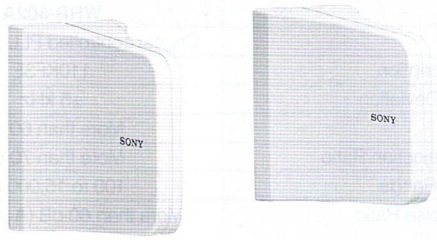
0 dBμ = 1μV; 0 dBm = 0.775 Vr.m.s. 600 Ω load; 0 dBμ = 0.775 Vr.m.s open

	DC-WL800
Input DC Power	10 V to 17 V
Output DC Power	3 V
Load Current	250 mA
Mass	50 g (1.8 oz)

AN-820A

UHF Antenna

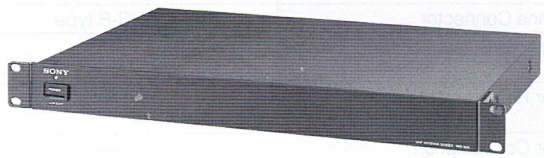
•Built-in RF amplifier •Easy installation on a wall or in a microphone stand with the supplied stand adaptor •LED indication for installation check •External power supply provided from the WRR-801A/820A/840A or the WD-820A via coaxial cable



WD-820A

UHF Antenna Divider

•Connection of up to 4 diversity distribution outputs •Cascade connections •Connection of up to 2 pair antennas •DC 9 V power supply for the AN-820A UHF antenna



Specifications

	WD-820A
Channel Distribution	2 inputs/4 outputs (x 2)
Input/Output VSWR	Less than 3.0
Input/Output Impedance	50 Ω
Cascade Output	1 output (x 2)
Power Supply for Antenna Booster (supplied from antenna input connectors)	DC 9 V
Power Consumption	6 W +outlet 300 W max.
Dimensions	482 (W) x 44 (H) x 300 (D) mm (19 x 1 3/4 x 11 7/8 inches)
Mass	4.2 kg (9 lb 4 oz)
Supplied Accessories	AC power cord (x 1) 50 Ω BNC terminators (x 6)

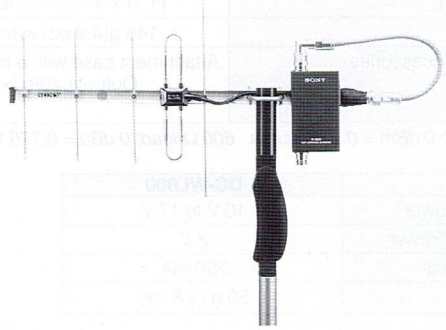
K-1236

UHF Antenna

K-1237

UHF Antenna Booster Unit

•Two way powering of 2 AA-size (LR-6) alkaline batteries which provide approx. 6 hours of continuous operation or external DC 10 V to 17 V



EC-1.5CF

Microphone cable for WRT-822A

•Connectors: SMC9-4P, XLR-3-11C type
•Length: 1.5 m (4.9 feet)

K-1161

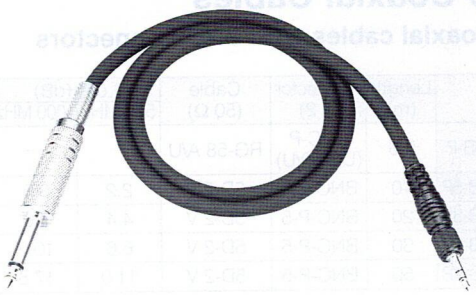
Microphone cables for connection between AN-820A, WRR-820A/840A and WD-820A

•Connectors: SMC9-4P, Phone
•Length: 0.7 m

GC-0.7MP

Guitar Cable

•Designed for use with WRT-805A UHF Synthesized Transmitter •6.3 mm dia. (1/4 inch dia.) 2-pole phone jack to 3.5 mm dia. (5/32 inch dia.) 3-pole mini phone plug with lock mechanism •Cable 5.5 mm dia. x 700 mm (7/32 inch dia. x 27 5/8 inches)



SC-M800

Carrying Case

•Compact and lightweight •Portability-enables a complete Freedom Series Wireless Microphone System to be easily and safely carried around
•Capacity to hold:

- WRT-800A UHF Synthesized Wireless Handheld Microphone (1)
- WRT-805A UHF Synthesized Body Pack Transmitter (1)
- WRR-800A UHF Synthesized Diversity Tuner (1) with AC adaptor (1)
- Lavalier microphones
- GC-0.7MP Guitar Cable (1)
- Microphone holder (1)
- AA size batteries (max. 3)
- Antennas (2) for the WRR-800A UHF Synthesized Diversity Tuner
- Unallocated space : 95 (W) × 25 (H) × 40 (D) mm (3 3/4 × 1 × 1 5/8 inches)
- Operating instructions (1) can be inserted between the inside of the case lid and the internal cushion

•Robust external polypropylene frame •Internal urethane cushions minimize external shocks and vibration

Specification

Dimensions:	460 (W) × 390 (H) × 90 (D) mm (18 1/8 × 15 3/8 × 3 5/8 inches)
Mass:	1.4 kg (3 lb 1.4 oz)
Supplied Accessories:	"Freedom" logo sticker (× 1) Packaging diagram (× 1)

LCS-T805

Soft Case

•Designed specifically to attach a WRT-805A UHF Synthesized Body Pack Transmitter to a guitar strap •Fixes a guitar strap with width of 15 mm (19/32 inch) to 70 mm (2 7/8 inches) (A convenient strap holder is included to allow attachment to a guitar strap with width less than 50 mm (2 inches))

Specification

Dimensions:	75 (W) × 110 (H) × 40 (D) mm (3 × 4 3/8 × 1 5/8 inches)
Mass:	50 g (1.76 oz)
Supplied Accessory:	Operating instructions (× 1)

WBC Coaxial Cables

50 Ω coaxial cables with BNC connectors

Model	Length (m)	Connector (x 2)	Cable (50 Ω)	Loss (dB) 500 MHz	Loss (dB) 1000 MHz	Mass (g)
WBC-0.6B-P	0.6	BNC-P (UG-88/U)	RG-58 A/U	—	—	70
WBC-10B-5P	10	BNC-P-5	5D-2 V	2.2	3.5	800
WBC-20B-5P	20	BNC-P-5	5D-2 V	4.4	7.0	1600
WBC-30B-5P	30	BNC-P-5	5D-2 V	6.6	10.5	2400
WBC-50B-5P	50	BNC-P-5	5D-2 V	11.0	17.5	4000

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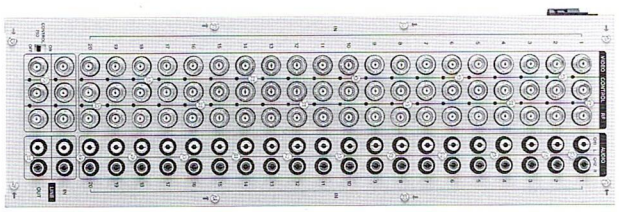
- 6-2. DVCAM Videocassette Tapes 338
- 6-3. S-VHS Videocassette Tapes 340

7. Memory Stick™ 341

VCS-1000

Video Selector

•For use in combination with the SVRM-960 Bi-directional remote controller for high quality picture monitoing •Minimizes the signal reflections caused by long cable runs •Up to 20 SVO-965P units equipped with the SVBK-902 optional Bi-directional interface board can be connected to a single VCS-1000 •Loop-through output is provided for connection of up to 50 VCS-1000 units •19-inch EIA rack mountable in various directions •On-Line indicator •When the power is turned off, the LINE OUT becomes a loop-through output of the LINE IN for easy maintenance



Supplied accessories: Mounting brackets (EIA 2U width × 2, DIA 3U width × 2)
AC power cord
Operation manual

Specifications

General

Mass: Approx. 4kg (8 lb 13 oz)
Dimensions: 424(W) × 88(H) × 132(D)mm
($16^{3}/_{4} \times 3^{1}/_{2} \times 5^{1}/_{4}$ inches)
Power requirements: AC 220 to 240V, 50/ 60Hz
Power consumption: 8.5W max.
Maximum number of VTR connection:
20 units

Video

Video signal system: EIA/CCIR monochrome, NTSC/PAL colour
Frequency response: 6MHz, 100kHz reference
S/N ratio: More than 54dB

Audio

Frequency response: 20Hz to 20kHz, 1kHz -10dBu standard
S/N ratio: More than 85dB

RF video

Frequency response: 6MHz
S/N ratio: More than 54dB

Video inputs/outputs

Video in (from SVO-965P):
BNC (×20), 1Vp-p, sync negative, 37.5Ω, unbalanced
Line in video (from previous VCS-1000):
BNC, 1Vp-p, sync negative, 75Ω unbalanced
Line out video (to SVRM-960 or next VCS-1000):
BNC, 1Vp-p, sync negative, 75Ω unbalanced

Control inputs/outputs

Control input (from SVO-965P): BNC (×20)
Rx*1 input: 1Vp-p, 37.5Ω unbalanced
Tx*2 output: 1.4Vp-p, 37.5Ω unbalanced
Line in control (from previous VCS-1000):
BNC,
Tx intput: 1Vp-p, 37.5Ω, unbalanced
Rx output: 1Vp-p, 37.5Ω, unbalanced
Line out control (to SVRM-960 or next VCS-1000):
BNC,
Tx input: 1Vp-p, 37.5Ω unbalanced
Rx output: 1Vp-p, 37.5Ω, unbalanced

RF

RF IN (from the SVO-965P):
BNC (×20), 1Vp-p, 37.5Ω, unbalanced
Line IN RF (from previous VCS-1000):
BNC, 1Vp-p, 75Ω, unbalanced
Line Out RF (to SVRM-960 or next VCS-1000):
BNC, 1Vp-p, 75Ω unbalanced

Audio inputs/outputs

Audio Input (from SVO-965P):
Phono (2-channel × 20), high impedance, unbalanced
Line In audio (from previous VCS-1000):
Phono (2-channel), high impedance, unbalanced
Line Out audio (to SVRM-960 or next VCS-1000):
Phono (2-channel), high impedance, unbalanced

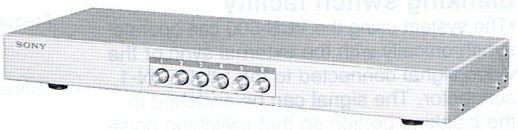
*1: Rx: Signal output from the SVRM-960
*2: Tx: Signal output from the SVO-965P

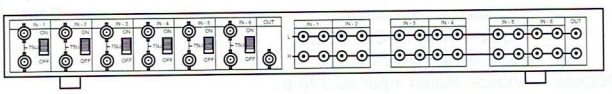
ⓈVCS-63A

Video and Audio Selector

•A video and audio (stereo) signal can be selected from the six video and audio sources.
•Equipped with the loop-through out connectors for each input signal.
•When two or more selectors are connected in parallel, using the loop-through capability, a camera or VTR signal can be selected independently.
•Can be mounted into a 19-inch EIA standard rack using the supplied rack mount adaptor.

Dimensions: Approx. 424(W) × 44(H) × 170(D)mm (16¾ × 1¾ × 6¾ inches)
Mass: Approx. 3kg (6 lb 10 oz)
Connectors: VIDEO IN/OUT—BNC type
AUDIO IN/OUT—PHONO
Supplied accessories:
Rack mount adaptor × 2
Screw for rack mounting × 4





SRP-12DAR

RGB Distribution Unit

•Provides AV applications including PC cost effective and high performance analog RGB distribution •One analog RGB signal is distributed into two signals and monitor signal(total three) •Monitor signal is routed through the D-sub 15p connector to monitor display •Wide frequency response of up to 250 MHz(BNC output) •Compact and durable enclosure is available

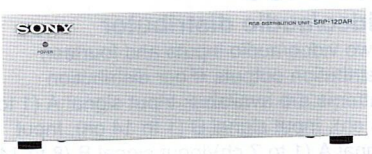
Inputs
Connector: BNC
RGB level: 0.7 Vp-p
RGB impedance: 75 Ω
Hs/Cs level: 1 V-4 Vp-p
Hs/Cs impedance: 47 kΩ (High impedance)
Hs/Cs sync: Positive/negative
Vs level: 1 V-4 Vp-p
Vs impedance: 47 kΩ (High impedance)

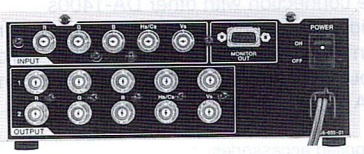
Outputs 1, 2
Connector: BNC
RGB level: 0.7 Vp-p
Hs/Cs level: 1 Vp-p/75 Ω, 4 Vp-p/high impedance
Vs level: 1 Vp-p/75 Ω, 4 Vp-p/high impedance

Monitor out
Connector: D-sub 15p
RGB level: 0.7 Vp-p
Hs/Cs level: 1 Vp-p /75 Ω, 4 Vp-p/high impedance
Vs level: 1 Vp-p/75 Ω, 4 Vp-p/high impedance

Electoric characteristics
RGB bandwidth
Output 1, 2: 40 Hz to 250 MHz+3/-3 dB
Monitor out: 40 Hz to 200 MHz+3/-3 dB
Gain difference between RGBs: 0.2 dB
Delay between RGBs: Less than 1 ns

General
Power requirements: Power plug converter for 120 V
Power consumption: 4 W





SRP-200DA

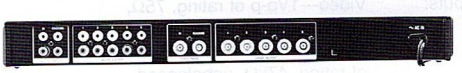
AV Distribution Amplifier

•Can distribute an AV input signal in five ways •The 75Ω terminator of the video input is automatically disconnected when a cable is connected to the stacking terminal. Up to four units can be connected in parallel
•Can be mounted into a 19-inch EIA standard rack

General
Dimensions: 482(W) × 44(H) × 175(D)mm (19 × 1¾ × 7 inches)
Mass: 2.5kg (5 lb 8 oz)
Power requirements: AC 120V, 230V, 50Hz/60Hz
Power consumption: 5W
Operating temperature: 0 to 40°C (32 to 104°F)
Storage temperature: -20 to +60°C (-4 to +140°F)

Video
Frequency responce: 100 kHz to 10 MHz, -0.5dB
DG: Less than 0.5%
DP: Less than 0.4°
Input: 75Ω/high impedance (high impedance at stacking output) BNC connector x1
Outputs: 75Ω, BNC connector ×5 (high impedance at stacking output)

Audio
Frequency response: 20Hz to 20kHz
Harmonic distortion: Less than 0.005%
Inputs (one stereo)
Reference level: -10dBu
Max. level: +10dBu
Impedance: 47kΩ
Type: Phono jack
Circuit: Unbalanced
Outputs (five stereo)
Reference level: -10dBu
Max. level: +10dBu
Impedance: 47Ω
Type: Phono jack
Circuit: Unbalanced

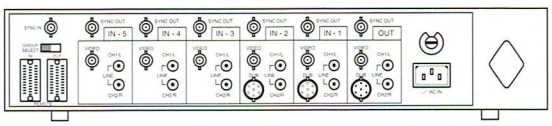


VCS-500

Video and audio switcher with blanking switch facility

•The system using the VCS-500 can operate synchronically with the external sync or the video signal connected to the VIDEO IN-1 connector. The signal can be switched in the blanking portion so that switching noise is eliminated
•Up to five video and audio signals can be controlled
•Remote control is possible when an RM-V5 VTR selector is used
•DUB circuit switching function
•Can be mounted into 19-inch EIA standard rack

Inputs: Video—1Vp-p of rating, 75Ω, unbalanced, sync negative
Sync—3V ±1Vp-p, 75Ω, unbalanced, negative
Audio—LINE IN CH-1/CH-2, -5dB of rating, 47kΩ
Outputs: Video—Rated input ±0.2Vp-p, 75Ω, unbalanced, sync negative
Sync—3V ±1Vp-p, 75Ω, unbalanced, negative
Audio—LINE OUT CH-1/CH-2, rated input ±2dB, 47kΩ
Frequency response:
Video ±1dB (up to 6MHz)
Audio 50 to 15,000Hz ±1dB
Connectors: VIDEO IN/OUT—BNC
SYNC IN/OUT—BNC
AUDIO IN/OUT—Phono
REMOTE IN/OUT—20-pin
DUB IN/OUT—7-pin
Power requirements:
AC 100/110/120/127/220/240V ±10% (selectable), 50/60Hz
Power consumption:
20W
Dimensions: 480(W) × 87(H) × 280(D)mm (19 × 3 1/2 × 11 1/8 inches)
Mass: 7kg (15 lb 7 oz)
Supplied accessories:
AC power cord
Screw for rack mounting



DA-1400

Video/audio distributor

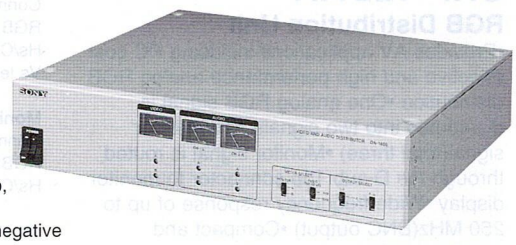
•Two video/audio inputs and fourteen distribution outputs •Four distribution patterns are available: Input signal A (1 to 14 ch), Input signal B (1 to 14 ch), Input signal A (1 to 7 ch)/Input signal B (8 to 14 ch), Input signal B (1 to 7 ch)/Input signal A (8 to 14 ch) •Loop-through output connector for each input signal to expand the connection with other DA-1400s
•Video/audio level meters for adjusting and confirming the output signal levels •Audio input level selector (-10dB/-6dB) •19-inch EIA standard rack mountable

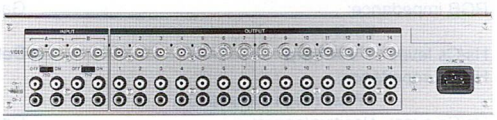
Supplied accessories:
AC power cord
Mounting brackets
(EIA 2U width: 1 pair)
Operation manual

General
Mass: 6kg (13 lb 23 oz)
Dimensions: 424(W) × 88(H) × 350(D)mm (16 3/4 × 3 1/2 × 13 7/8 inches)
Power requirements:
AC 220 to 240V, 50/60Hz
Power consumption:
16W

Video
Inputs: Loop-through, BNC (×2), 1Vp-p, 75Ω, sync negative
Outputs: BNC (×14), 1Vp-p, 75Ω, sync negative
S/N ratio: Better than 60dB
Frequency response:
10MHz ± 1dB

Audio
Inputs: Loop-through, Phono (2-channel) (×2)
Input level: –10dBu/–6dBu switchable, 50kΩ
Outputs: Phono (2-channel) (×14)
Output level: –10dBu/–6dBu, 100Ω
S/N ratio: Better than 70dB at 600Ω
Frequency response:
20Hz to 20kHz ±1dB
Distortion: Less than 0.1%, -10dBu at 1kHz



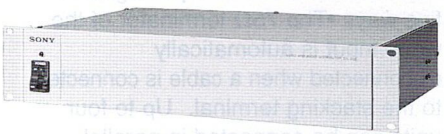


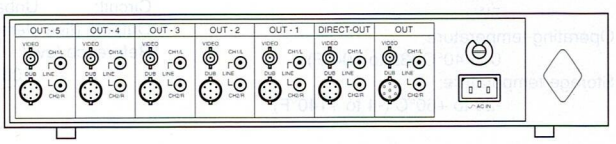
DA-500

Colour and monochrome video/audio distributor with DUB connectors

•Five Video/DUB/Audio outputs and one direct output
•DUB connectors are furnished so that a high quality video signal will be obtained
•Up to four DA-500s can be connected in series so that the input signal can be divided into as many as 20 separate signals
•Can be mounted into 19-inch EIA standard rack

Inputs: Video—1Vp-p of rating, 75Ω, unbalanced, sync negative
Audio—LINE CH-1/CH-2, -5dB of rating, 47kΩ, unbalanced
Outputs: Video—OUT 1 to 5, Rated input ±0.2Vp-p, 75Ω, unbalanced, sync negative
Audio—LINE CH-1/CH-2, Rated input ±2dB, 47kΩ
Connectors: VIDEO IN/OUT, DIRECT OUT—BNC
AUDIO IN/OUT, DIRECT OUT—Phono
Power requirements:
AC 100/110/120/127/220/240V ±10% (selectable), 50/60Hz
Power consumption:
20W
Dimensions: 480(W) × 87(H) × 280(D)mm (19 × 3 1/2 × 11 1/8 inches)
Mass: 6.1kg (13 lb 7 oz)
Supplied accessories:
AC power cord
Screw for rack mounting





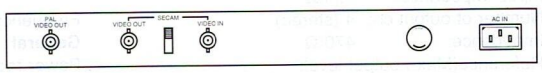
OTHER VIDEO EQUIPMENT AND ACCESSORIES

ⓈCST-1000SP

SECAM-PAL transcoder

•Converts SECAM colour signal to PAL colour signal

Input signal: SECAM colour composite 1Vp-p, 75Ω switchable of high impedance for loop-through
Output signal: PAL colour composite, 1Vp-p, 75Ω
Signal conversion method: Decode/encode
Input/Output connector: BNC
Power requirements: AC 220V ±10%, 50/60Hz
Power consumption: 15VA
Operating temperature: 0 to 45°C (32 to 113°F)
Dimensions: 424(W) × 44(H) × 250(D)mm ($16^3/_4 \times 1^3/_4 \times 9^7/_8$ inches)
Mass: 4kg (8 lb 13 oz)
Supplied accessories: AC power cord (×1), Fuse (315mAT) (×1), Rack mount metals (×1 set)



VA-200E

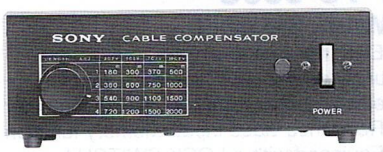
Cable compensator for stable colour/monochrome video transmission

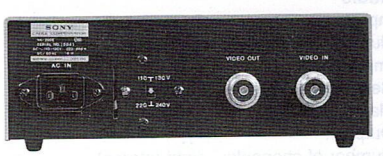
•Compensates for the attenuation caused by long-distance transmission of colour/monochrome video signals with a coaxial cable
•Especially effective for the transmission of colour video signals

Length adjustments

	3C-2V	5C-2V	7C-2V	10C-2V
1	180m	300m	370m	500m
2	360m	600m	750m	1000m
3	540m	900m	1100m	1500m
4	720m	1200m	1500m	2000m

Video input: 1.0Vp-p to 1.4Vp-p 75Ω, unbalanced
Video output: 1Vp-p, 75Ω, unbalanced
Frequency response: Flat to 4.5MHz ±2dB
Operating temperature: 0 to 40°C (32 to 104°F)
Connectors: VIDEO IN/OUT—UHF (M-type)
Power requirements: AC 110 to 130/220 to 240V selectable, 50/60Hz
Power consumption: 6W
Dimensions: 214(W) × 75(H) × 171(D)mm ($8^1/_2 \times 3 \times 6^3/_4$ inches)
Mass: 1.4kg (3 lb 4 oz)
Supplied accessory: AC power cord





PVS-1680S

Matrix Switcher

•Sixteen inputs and eight outputs matrix functions •RS-232C interface port for remote control from a PC •Reference video input and roop-through output •Memory function up to 50-scene •Equipped with a LOCK SWITCH to prevent inadvertent operation •4U high, mountable in 19-inch standard rack

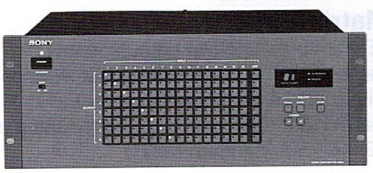
Supplied accessory: Power cable (1)

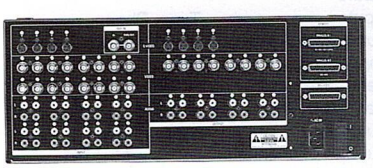
Audio
Input and output connector: Phono
Number of input ch: 16 (stereo)
Impedance: 47 kΩ
Reference(Max.) input level: -10 dBu (+16 dBu)
Input impedance: 47 kΩ
Number of output ch: 8 (stereo)
Impedance: 470 Ω
Reference(Max.) output level: -10 dBu (+16 dBu)
Output impedance: 470 Ω
Load impedance: More than 10 kΩ
Frequency response: 20 Hz to 20 kHz, +0.1 dB/ -0.5 dB
T.H.D.: Less than 0.005%

Video (Composite)
Input and output connector: BNC

S-Video
Input and output connector: 4-pin mini DIN
Number of input and output: 4*
*Interlocked with channels to 1 to 4 of composite input
Input and output impedance: 75 Ω
Frequency response: 50 Hz to 10 MHz

General
Power requirements: AC 230 V, 50/60 Hz
Power consumption: 25 W
Operating temperature: 0 to 40°C (32 to 10°F)
Storage temperature: -20 to 60°C (-4 to 140°F)
Mass: 13 kg(22 lb 1 oz)
Dimensions: 482 (W) × 176 (H) × 350 (D)mm ($19 \times 7 \times 13^7/_8$ inches)





PVS-1240S

Matrix Switcher

•Twelve inputs and four outputs matrix functions •RS-232C interface port for remote control from a PC •Reference video input and loop-through output •Memory function up to 50-scene •Equipped with a LOCK SWITCH to prevent inadvertent operation •4U high, mountable in 19-inch standard rack

Supplied accessories: Power cable (1), Plug adaptor (1)

Audio

Inputs and output connector: Phono
Number of input ch: 12 (stereo)
Impedance: 47 kΩ
Reference(Max.) input level: -10 dBu (+16 dBu)
Input impedance: 47 kΩ
Number of output ch: 4 (stereo)
Impedance: 470 Ω
Reference(Max.) output level: -10 dBu (+16 dBu)
Output impedance: 470 Ω
Load impedance: More than 10 kΩ
Frequency response: 20 Hz to 20 kHz, +0 dB/ -0.5 dB
T.H.D.: Less than 0.002%

Video (Composite)

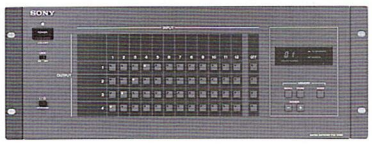
Inputs and output connector: BNC
Number of input ch: 12
Number of output ch: 4
Input and output impedance: 75 Ω
Frequency response: 50 Hz to 10 MHz, +0.8 dB / -0.5 dB
DG: Less than 0.5%
DP: Less than 0.5°

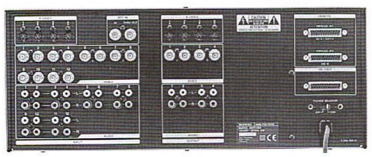
S-Video

Input and output connector: 4-pin mini DIN
Number of input and output ch : 4*
*Interlocked with ch1 to 4 of composite input
Input and output impedance: 75 Ω
Frequency response: 50 Hz to 10 MHz

General

Power requirements: AC 120/230 V, 50/60 Hz
Power consumption: 18 W
Operating temperature: 0 to 40°C (32 to 10°F)
Storage temperature: -20 to 60°C (-4 to 140°F)
Mass: 10 kg (22 lb 1 oz)
Dimensions: 482 (W) × 176 (H) × 350 (D)mm (19 × 14 × 13 7/8 inches)





PVS-880S

Matrix Switcher

•Eight inputs and eight outputs matrix functions •RS-232C interface port for remote control from a personal computer •Reference video input •Memory function •Equipped with a LOCK SWITCH to prevent inadvertent operation •Can be mounted in a 19-inch EIA standard rack

Supplied accessory: Power cable (1)

Audio

Inputs: Type: Phono
Number of channels: eight (stereo)
Impedance: 47kΩ
Reference level: –10dBu
Max. input level: +16dBu
Outputs: Type: Phono
Number of channels: eight (stereo)
Impedance: 470Ω
Reference level: –10dBu
Max. output level: +16dBu
Load impedance: More than 10kΩ
Frequency response: 20Hz to 20kHz, +0.1/–0.5dB
Total harmonic distortion: Less than 0.005%

Video

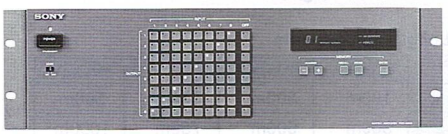
Composite
Inputs: Type: BNC
Number of channels: eight
Impedance: 75Ω
Outputs: Type: BNC
Number of channels: eight
Impedance: 75Ω
Reference video: Type: BNC
Number of inputs: two
Impedance: 47kΩ
Max. input level: 4Vp-p
Frequency response: 50kHz to 10MHz, +0.8/-0.5dB
DG: Less than 0.5%
DP: Less than 0.5°

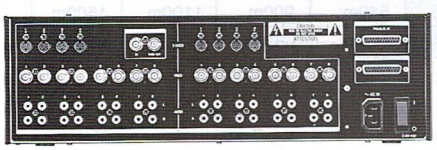
S-Video

Inputs: Type: 4-pin mini DIN
Number of channels: four* *Interlocked with channels to 1to 4 of VIDEO IN (composite)
Impedance: 75Ω
Outputs: Type: 4-pin mini DIN
Number of channels: four
Impedance: 75Ω
Frequency response: 50kHz to 10MHz, ±0.5dB

General

Power requirements: AC 120–230V, 50/60Hz
Power consumption: 17W
Operating temperature: 0 to 40°C (32 to 104°F)
Storage temperature: –20 to 60°C (–4 to 140°F)
Mass: 10kg (22 lb 1 oz)
Dimensions: 482(W) × 132(H) × 350(D)mm (19 × 5 1/4 × 13 7/8 inches)





*Except for North America

PVS-820S

Matrix Switcher

•Eight inputs and two outputs matrix functions •Reference video input •Equipped with a LOCK SWITCH to prevent inadvertent operation •Can be mounted in a 19-inch EIA standard rack

Supplied accessory: Power cable (1)

Audio

Inputs: Type: Phono
Number of channels: eight (stereo)
Impedance: 75Ω
Reference level: –10dBu
Max. input level: +10dBu
Outputs: Type: Phono
Number of channels: two (stereo)
Impedance: 470Ω
Reference level: –10dBu
Max. output level: +10dBu
Load impedance: More than 10kΩ
Frequency response: 20Hz to 20kHz, +0.1/–0.5dB
Total harmonic distortion: Less than 0.005%

Video

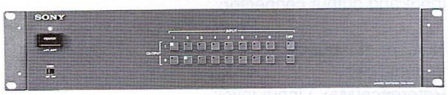
Inputs: Type: BNC
Number of channels: eight
Impedance: 75Ω
Outputs: Type: BNC
Number of channels: two
Impedance: 75Ω
Reference video: Type: BNC
Number of input: two
Impedance: 47Ω
Max. input level: 4Vp-p
Frequency response: 50kHz to 10MHz, +0.3/–1dB
DG: Less than 0.5%
DP: Less than 0.5°

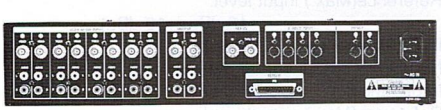
S-Video

Inputs: Type: 4-pin mini DIN
Number of channels: 4* *Interlocked with channels to 1 to 4 of VIDEO IN (composite)
Impedance: 75Ω
Output: Type: 4-pin mini DIN
Number of channels: two
Impedance: 75Ω
Frequency response: 50kHz to 10MHz, +0.3/-1dB

General

Power requirements: AC 120V–230V, 50/60Hz
Power consumption: 17W
Operating temperature: 0 to 40°C (32 to 10°F)
Storage temperature: –20 to 60°C (–4 to 140°F)
Mass: 4kg (8 lb 13 oz)
Dimensions: 482(W) × 88(H) × 220(D)mm (19 × 3 1/2 × 8 3/4 inches)





*Except for North America

BC-1WDCE

Battery charger for NP-1B

•Battery charger for the NP-1B battery pack
•Up to four NP-1B batteries can be charged
•Auto refresh function •Battery life indication
•Skips charging process for fully charged batteries

Power requirements:
AC 220 to 240 V ±10%, 50/60 Hz
Power consumption:
51 W
Charging time: Approx. 90min
Dimensions: 107.5 (W) × 88 (H) × 325 (D) mm
($4^1/_4 \times 3^1/_2 \times 12^7/_8$ inches)
Mass: Approx. 1.7 kg (3 lb 5 oz)

BC-410CE

Battery charger for BP-90A/NP-1B

•Battery charger for BP-90A and NP-1B
•Up to four BP-90As and four NP-1Bs can be charged •Battery refreshing function
•Trickle charge to avoid self-discharge

Power requirements:
AC 220/240 V selectable, 50/60 Hz
Power consumption:
75 W
Charging time:
BP-90A: 160 min
NP-1B: 90 min
Dimensions:
212 (W) × 85 (H) × 325 (D) mm
($4^1/_2 \times 3^3/_8 \times 12^7/_8$ inches)
Mass: 4 kg (8 lb 13 oz)

Supplied accessories:
AC power cord
Operation/maintenance manual

BC-L50

Lithium-ion Battery Charger

•Compact and mobile battery charger which can be used with Lithium-ion battery packs
•Up to two Lithium-ion batteries attached
•Use a unique new time-saving charging system for quick charges

Power requirements:
AC 220 V to 240 V, 50/60 Hz
Output: DC 16.8 V, 2.2 A
Power consumption:
Approx. 49 W
Operating temperature:
-5° C to 45° C (23° F to 113° F)
Storage temperature:
-20° C to 60° C (-4° F to 140° F)
Operating/storage humidity:
5 to 90 % RH

Mass: 1.1 kg (2 lb 6 oz)
Dimensions (w/h/d):
60 × 191 × 130 mm
(2 3/8 × 7 5/8 × 5 1/8 inches)
(w/o projections)
Charge system:
Constant voltage and current charge system with timer stop system
Charge control system:
Constant voltage and current chargecontrol system
Booster charge current:
Approx. 2.2 A

BC-L100CE

Battery charger for BP-L60A BP-L90A/NP-1B/BP-90A

•Battery charger for BP-L60A/BP-L90A/NP-1B/BP-90A batteries •Up to four BP-L60A, BP-L90A, NP-1B or BP-90A can be charged

Power requirements:
AC100 V to 240 V, 50/60 Hz
Power consumption:
110 W
Charging time:
BP-L60A: Approx. 2.5 hours
BP-L90A: Approx. 3.5 hours
NP-1B: Approx. 70 min

Dimensions: 330 (W) × 131 (H) × 144 (D) mm
(13 × $5^1/_4$ × $5^3/_4$ inhes)
Mass: Approx. 2 kg (4 lb 7 oz)

BC-V500

Battery charger

•Compact battery chager for the NP-F530/F730/F930, etc. •Two batteries can be charged at the same time

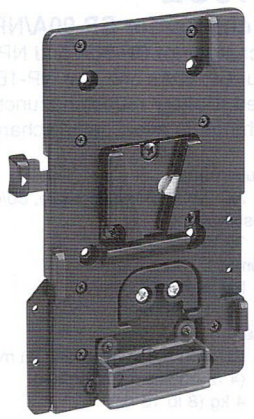
Dimensions: 45(W) × 98(H) × 50(D) mm
Mass: Approx. 120 g
Power requirements:
AC100 to 240V, 50/60Hz
Output: DC 8.4V/0.6A

BKW-L601

Battery adaptor for between DSR-1P, PVV-3P and BP-L60A/BP-L90A

•Can be attached to the optional battery case of the DSR-1P DVCAM recorder and the PVV-3P Betacam SP 2000 PRO recorder •Allows the DSR-1P and the PVV-3P to be operated with BP-L60A and BP-L90A

Dimensions: 89 (W) × 141.4 (H) × 14.2 (D) mm
($3^5/_8 \times 5^5/_8 \times {}^9/_{16}$ inches)
Mass: 110 g (4 oz)



DC-520

Battery adaptor for NP-1B

•Can be attached to the supplied battery case of the DSR-1P, PVV-3P Betacam SP 2000PRO recorder UVW-100BP
•Allows the DSR-1P, PVV-3P and UVW-100BP to be operated with two NP-1B batteries
•Supplies DC 12V to the DSR-1P, PVV-3P and UVW-100BP

Dimensions: 100 (W) × 195 (H) × 44 (D) mm
($4 \times 7^3/_4 \times 1^3/_4$ inches)
Mass: 230 g (8 oz)
Supplied accessories:
Screws (M3 × 6)

DC-500 (Mount type)

Battery case for BP-90A

•Battery case for one BP-90A battery
•Designed for the DSR-1P, PVV-3P and UVW-100BP
•Supplies DC 12V

Dimensions: 147 (W) × 207 (H) × 62 (D) mm
($5^7/_8 \times 8^1/_4 \times 2^1/_2$ inches)
Mass: 400 g (14 oz)
Supplied accessories:
Screws (M3 × 5)

DC-210 (waist belt type)

Battery case for BP-90A

•Battery case for one BP-90A battery pack
•Supplies DC 12V to Sony video equipment

Dimensions: 145 (W) × 180 (H) × 85 (D) mm
(5 3/4 × 7 1/8 × 3 3/8 inches)
Mass: 500 g (1 lb 2 oz)
Supplied accessories:
Power cord (1.2m) (×1)
Belt

DC-L1

Battery Case for NP-1B

•Battery Case for a NP-1B battery to be used with the camcorders/portable editors which incorporates the V-shoe attachment
•Quick and easy battery change

Specifications

Dimensions: 101(W) × 196.2(H) × 54.8(D) mm
(4 × 7 3/4 × 2 1/4 inches)
Mass: 300g (11 oz)

DC-L90

Battery Case for BP-90A

•Battery Case for a BP-90A battery to be used with the camcorders/portable editors which incorporates the V-shoe attachment
•Quick and easy battery change

Specifications

Dimensions: 138(W) × 203.6(H) × 76.6(D) mm
(5 1/2 × 8 1/8 × 3 1/8 inches)
Mass: 620g (1 lb 6 oz)

BP-L40

Lithium-ion Battery

•Compact Lithium-ion battery for professional Sony camcorders, which is designed to match the body height of the DSR-300P •Provides continuous camcorder operation for approximately 80 minutes.
•The recommended use for the BP-L40 is 30 W or less.

Battery type:
Lithium-ion battery
Maximum voltage:
16.8 V DC
Nominal voltage:
14.4 V DC
Capacity: 38.9 Wh
Dimensions (w/h/d):
92 × 138 × 37 mm
(3 5/8 × 5 1/2 × 1 1/2 inches)
Mass: Approx. 520 g (1 lb 1 oz)

BP-L60A

Rechargeable Lithium Ion Battery Pack

•High capacity lithium-ion battery •No "Memory Effect" •Built-in LED capacity indicator for a quick visual check of the remaining charge •V-shoe attachment for quick and easy battery change

Specifications

Type of battery:	Lithium-ion rechargeable
Maximum voltage:	16.8V
Nominal voltage:	14.4V
Current capacity:	60Wh
Cell capacity:	5.4Ah
Operating temperature:	–20°C to +45°C (–4°F to +113°F)
Dimensions:	101(W) × 168.7(H) × 37(D) mm (4 × 6¾ × 1½ inches)
Mass:	900g (1 lb 16 oz)

766,– n-tr
916,– Liste

BP-L90A

Rechargeable Lithium Ion Battery Pack

•High capacity lithium-ion battery •No "Memory Effect" •Built-in LED capacity indicator for a quick visual check of the remaining charge •V-shoe attachment for quick and easy battery change

Specifications

Type of battery:	Lithium-ion rechargeable
Maximum voltage:	16.8V
Nominal voltage:	14.4V
Current capacity:	90Wh
Cell capacity:	8.1Ah
Operating temperature:	–20°C to +45°C (–4°F to +113°F)
Dimensions:	101(W) × 168.7(H) × 60(D) mm (4 × 6¾ × 2⅜ inches)
Mass:	1300g (2 lb 14 oz)

1114 n-tr
1332 Liste

BP-90A

Rechargeable battery pack

•Supplies DC 12V to DSR-1P, PVV-3P, UVW-100BP, PVM-9045QM/9042QM/ 6041QM, TU-1040E

Type of battery:	NiCd rechargeable
Voltage:	DC 12V
Current capacity:	5Ah
Dimensions:	123 (W) × 171 (H) × 37 (D) mm (4⅞ × 6¾ × 1½ inches)
Mass:	1.6 kg (31 lb 8 oz)

NP-1B

Rechargeable battery pack

•Supplies DC 12V to DSR-1P, PVV-3P, UVW-100BP, VO-8800P, DXC-D30P/ D30WSP/327BP, PVM-9045QM/9042QM/ 6041QM, TU-1040E, EVM-9010PR/1410PR

Battery used:	NiCd battery
Output voltage:	DC 12V
Capacity:	2.3 Ah
Dimensions:	Approx. 72 (W) × 25 (H) × 185 (D) mm (2⅞ × 1 × 7⅜ inches)
Mass:	Approx. 600 g (1 lb 5 oz)

NP-F220/B
InfoLITHIUM Rechargeable Battery Pack

Maximum voltage:
8.4 V DC
Capacity: 1400mAh
Dimensions (w/h/d):
82 × 20 × 54 mm
(3 1/4 × 13/16 × 2 1/4 inches)
Mass: Approx. 100 g (3 oz)

NP-F950
InfoLITHIUM Rechargeable Battery Pack

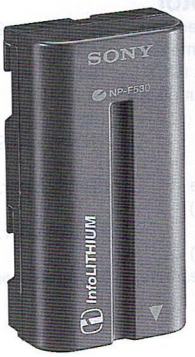
Maximum voltage:
7.2 V DC
Capacity: 4050mAh
Dimensions: 38.4(W) × 59.7(H) × 70.8(D) mm
Mass: Approx. 280 g

NPA-10000/B
Three-battery Holder
•Can hold three NP-F950 InfoLITHIUM Rechargeable Battery Pack

Power requirements:
7.2 VDC
Dimensions (w/h/d):
95 × 132 × 81mm
(3 3/4 × 5 1/4 × 3 1/4 inches)
Mass: Approx. 220 g

NP-F550 (F530)
InfoLITHIUM Rechargeable Battery Pack
•Can be used for the DKC-CM30

Voltage: 7.2V
Capacity: 1500 mAh (1350 mAh)
Dimensions (W × H × D):
38.4 × 20.6 × 70.8 mm
(1 9/16 × 13/16 × 2 7/8 inches)
Mass: Approx. 95 g (110 g)



AC-550CE

AC Adaptor

•Supplies DC power to the one-piece camcorder and a portable VTR through the 26-pin (CCZ-type) camera connector or the XLR 4-pin DC OUT connector

Supplied accessories:
AC power cord
DC power cord
Operation and Maintenance manual

Power requirements:
AC 110 to 120V/220 to 240V ±10% selectable, 50Hz
Power consumption: Max 130W
DC output: 13.5V, 7A
Input/Output connectors:
CAMERA: CCZ-type 26-pin
VIDEO OUT: BNC type
MIC OUT: Equivalent to XLR-3-31
DC OUT: Equivalent to XLR-4-31
EXT VBS: BNC type
Dimensions: 217 (W) × 91 (H) × 327 (D) mm ($8^5/_8 \times 3^5/_8 \times 12^7/_8$ inches)
Mass: 3.8 kg (8 lb 6 oz)

CMA-8ACE

AC Adaptor

•Supplies AC power to the one-piece camcorder and portable VTR through the 14-pin(CCQ-BRS) camera connector

Power requirements :
AC 110 to 127V or 220 to 240V selectable, 50/60Hz
Power consumption :
95W
Dimensions: 105(W) × 105 (H) × 308 (D) mm (4 ¼ × 4 ¼ × 12 ¼ inches)
Mass: Approx. 2.8 kg (6 lb 2.8 oz)

AC-DN1

AC Adaptor

Power requirements:
AC 100V to 240V
Power consumption:
50W (90VA) or less
Power output (DC):
38W
Voltage output (DC):
16.7V
Mass: 660g
Demensions: 112(W) × 169(H) × 38(D)mm
Charging time:
BP-L60A 4hr. (to about 85% capacity)
BP-L90A 6hr. (to about 85% capacity)
Supplied accessories:
DC power cord (1)
BKW-L601/1 (1)

AC-DN2A

AC Adaptor

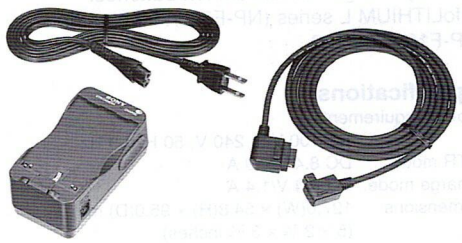
Power requirements: AC 100V to 240V
Power consumption: 180W
Power output (DC): 150W
Voltage output (DC): 16.7V
Mass: 1kg
Demensions: 112(W) × 169(H) × 70(D)mm
Charging time: BP-L60A 4hr. (to about 85% capacity)
BP-L90A 6hr. (to about 85% capacity)
Supplied accessories: DC power cord (1)

AC-V100/B

AC adaptor/battery charger

•Battery charger for InfoLITHIUM battery such as NP-F220/B and AC adoptor

Power requirement:
AC 100V to 240V, 50/60Hz
Power consumption:
25 W
Dimensions (w/h/d):
57 × 44 × 107 mm
(2 1/4 × 1 6/8 × 4 1/4 inches)
Mass: Approx. 190 g (6 oz)



AC-V900/B

Three-battery charger/AC adaptor

•Battery charger which can hold three-battery such as NP-F950/B and AC adoptor

Power requirement:
AC 100V to 240V, 50/60Hz
Power consumption:
70W
Dimensions (w/h/d):
169(W) × 58(H) × 153(D) mm
Mass: Approx. 650 g

AC-VQ800

AC Adaptor/Charger

•AC adaptor for Lithium-ion type camcorder
•Battery charger for Lithium-ion batteries:
InfoLITHIUM L series (NP-F550/750/950) and
InfoLITHIUM M series(consumer)

Specifications:

Power requirment:
AC 100 V to 240 V, 50 Hz/60 Hz
VTR mode: DC 8.4 V/2.0 A
Charge mode: DC 8.4 V/1.4 A
Dimensions: 136.0(W) × 51.5(H) × 89.7(D) mm
(5 3/8 × 2 1/8 × 3 5/8 inches)
Mass: Approx. 250 g (0.6 lb)
Supplied accessories:
Connectign cable DK-415 (DC plate type)
DK-215 (DC IN type)
AC power cord (mains lead)

DC-VQ800

DC Adaptor/Charger

•Car battery adaptor for Lithium-ion type camcorder
•Battery charger for Lithium-ion batteries:
InfoLITHIUM L series (NP-F550/750/950) and
InfoLITHIUM M series(consumer)

Specifications

Power requirement:
DC 12 V/24 V
VTR mode: DC 8.4 V/2.0 A
Charge mode: DC 8.4 V/1.4 A
Dimensions: 136.0(W) × 51.5(H) × 89.7(D) mm
(5 3/8 × 2 1/8 × 3 5/8 inches)
Mass: Approx. 300 g (0.7 lb)
Supplied accessories:
Connectign cable DK-415 (DC plate type)
DK-215 (DC IN type)

AC-V700

AC Adaptor/Charger

•AC adaptor for Lithium-ion type camcorder
•Battery charger for Lithium-ion batteries:
InfoLITHIUM L series (NP-F550/750/950) and
NP-F100/200/220

Specifications:

Power requirement:
AC 100 V to 240 V, 50 Hz/60 Hz
VTR mode: DC 8.4 V/2.0 A
Charge mode: DC 8.4 V/1.4 A
Dimensions: 127.0(W) × 54.8(H) × 95.0(D) mm
(5 × 2 1/4 × 3 3/4 inches)
Mass: Approx. 265 g (0.6 lb)
Supplied accessories:
Connectign cable DK-415 (DC plate type)
AC power cord (mains lead)

DC-V700

DC Adaptor/Charger

•Car battery adaptor for Lithium-ion type camcorder
•Battery charger for Lithium-ion batteries:
InfoLITHIUM L series (NP-F550/750/950) and
NP-F100/200/220

Specifications

Power requirement:
DC 12 V/24 V
VTR mode: DC 8.4 V/2.0 A
Charge mode: DC 8.4 V/1.4 A
Dimensions: 127.0(W) × 54.8(H) × 95.0(D) mm
(5 × 2 1/4 × 3 3/4 inches)
Mass: Approx. 265 g (0.6 lb)
Supplied accessory:
Connectign cable DK-415 (DC plate type)

Basic Consoles

System consoles

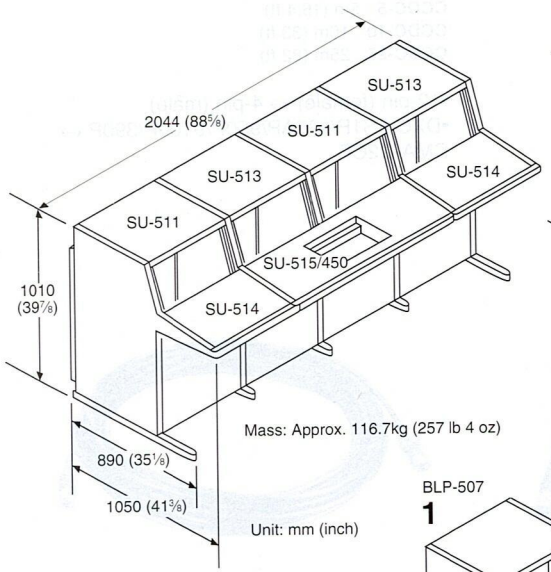
SU-450 Double size table for RM-450CE/DME-450P
SU-511 Unit rack
SU-512 Unit table
SU-513 Extension rack
SU-514 Extension table
SU-515 Double size table for RM-440

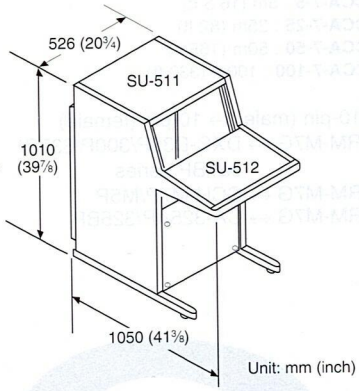
Rack mount metals

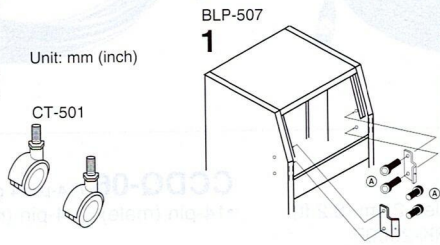
RMM-450 For RM-450CE/DME-450P mounting
RMM-501 For Type-5/9 series VTR mounting
RMM-502 For RM-500 or RM-V5 mounting
RMM-503 For RM-580 mounting
RMM-505 For RM-500 (× 2), RM-V5 (× 2) or RM-500/RM-V5 mounting
RMM-506 For Betamax or audio equipment mounting
RMM-507 For Type-7/9 series VTR mounting (except VO-9850P/9800P)

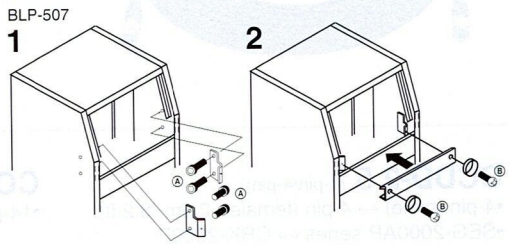
Blank panels

BLP-501 1U Blank panel
BLP-502 2U Blank panel
BLP-503 3U Blank panel
BLP-504 1U Pad panel
BLP-505 2U Pad panel
BLP-506 6U Modification panel
BLP-507 Blank panel









CCA-7 cables (10-pin/10-pin)

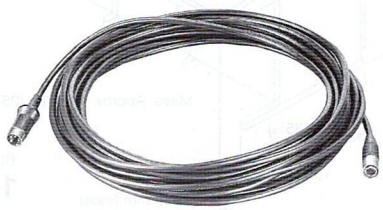
CCA-7-5 : 5m (16.5 ft)
CCA-7-25 : 25m (82 ft)
CCA-7-50 : 50m (165 ft)
CCA-7-100 : 100m (330 ft)

•10-pin (male) ↔ 10-pin (female)
•RM-M7G ↔ DXC-D30P/300P/637P/327BP series
•RM-M7G ↔ CCU-M7P/M5P
•RM-M7G ↔ CA-325AP/325BP

CCDC cables (12-pin/4-pin)

CCDC-5 : 5m (16.4 ft)
CCDC-10 : 10m (33 ft)
CCDC-25 : 25m (82 ft)

•12-pin (female) ↔ 4-pin (male)
•DXC-LS1P/107AP/950P/9100P/390P ↔ CMA-D2CE



CCDC-A cables (12-pin/4-pin)

CCDC-50A : 50m (164 ft)
CCDC-100A : 100m (330 ft)

•12-pin (female) ↔ 4-pin (male)
•DXC-LS1P/107AP/950P/9100P/390P ↔ CMA-D2CE

CCDD-2.5 (4-pin/4-pin)

•4-pin (male) ↔ 4-pin (female), 2.5m (8.2 ft)
•SEG-2000AP series ↔ CRK-2000P

CCDQ-06 (14-pin/4-pin)

•14-pin (male) ↔ 4-pin (male), 0.6m (2 ft)

CCF cables (6-pin/6-pin)

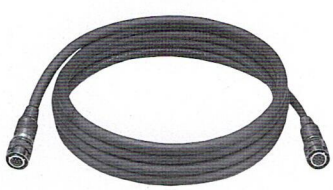
CCF-1 : 1m (3.3 ft)
CCF-5 : 5m (16.4 ft)
CCF-10 : 10m (33 ft)
CCF-25 : 25m (82 ft)
CCF-50 : 50m (164 ft)

•6-pin (male) ↔ 6-pin (female)
•SEG-2000AP/2550AP ↔ WEX-2000P

CCMC cables (12-pin/12-pin)

CCMC-12P02 : 2m (6.4 ft)
CCMC-12P05 : 5m (16.4 ft)
CCMC-12P10 : 10m (33 ft)
CCMC-12P25 : 25m (82 ft)

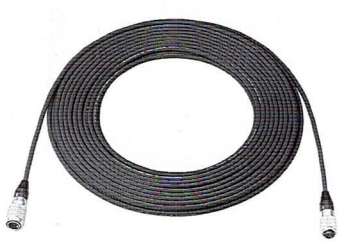
•12-pin (male) ↔ 12-pin (female)
•DXC-LS1P/107AP/950P/9100P/390P ↔ CMA-D2CE



CCMC-16P10 (16-pin/20-pin)

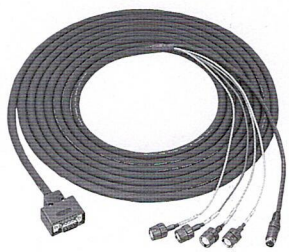
CCMC-16P03 : 3m (10 ft)
CCMC-16P10 : 10m (33 ft)

•16-pin (female) ↔ 20-pin (female)
•DXC-LS1P Camera Head ↔ DXC-LS1P Camera Control Unit



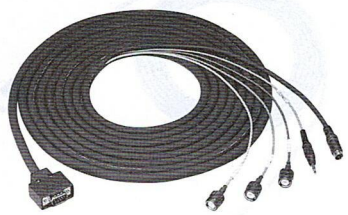
CCMC-9DS (9-pin/4BNCs, DIN 4-pin)

•9-pin D-sub (male) ↔ BNCs (R/G/B/SYNC, male), DIN 4-pin (Y/C, male)
•5m (16.4 ft)
•For video output from DXC-950P/9100P/390P



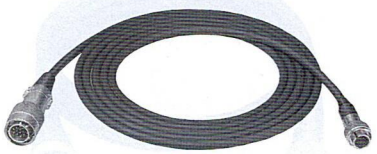
CCMC-9DSMN (9-pin/3BNCs, AUDIO MINI JACK, DIN 4-pin)

•9-pin D-sub (male) ↔ BNCs (R/G/B, male), DIN 4-pin (Y/C, male), AUDIO MINI JACK (SYNC), 5m (16.4 ft)
•DXC-950P/9100P ↔ UP-7300MDP/5600MDP/2850P/2800P/2330P/2300P/2100P



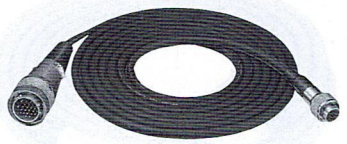
CCTQ-3RGB (20-pin/14-pin)

•DXC-950P/9100P ↔ CCU-M5P, 3m (10 ft)
•CCQQ-1 interconnection adaptor is supplied
•It is possible to extend the cable length with CCQ-AM cable
•RGB/VBS output to CCU-M5P



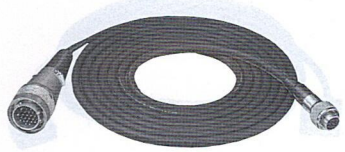
CCTZ-3RGB (20-pin/26-pin)

•DXC-950P/9100P ↔ CCU-M5P, 3m (10 ft)
•CCZZ-1E interconnection adaptor is supplied
•It is possible to extend the cable length with CCZ-A cable
•RGB/VBS output to CCU-M7P/M5P



CCTZ-3YC (20-pin/26-pin)

•DXC-950P/9100P ↔ CCU-M5P, 3m (10 ft)
•CCZZ-1E interconnection adaptor is supplied
•It is possible to extend the cable length with CCZ-A cable
•YC/VBS output to CCU-M7P/M5P



CCQ-AM cables (14-pin/14-pin)

CCQ-10AM : 10m (33 ft)
CCQ-25AM : 25m (82.5 ft)
CCQ-50AM : 50m (165 ft)
CCQ-100AM : 100m (330 ft)

•14-pin (male) ↔ 14-pin (female)
•CA-327P ↔ CCU-M5P

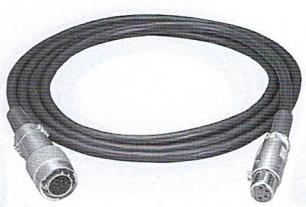
CCQ-BRS cables (14-pin/14-pin)

CCQ-2BRS : 2m (6.4 ft)
CCQ-5BRS : 5m (16.4 ft)
CCQ-10BRS : 10m (33 ft)
CCQ-25BRS : 25m (82.5 ft) only for projector
CCQ-50BRS : 50m (165 ft) only for projector

•14-pin (male) ↔ 14-pin (female)
•CA-327P ↔ VO-8800P/CMA-8ACE, S-VHS VTR
•VPH-G70QM/G70QMG/G70VRM/D50QM ↔ PC-1271M

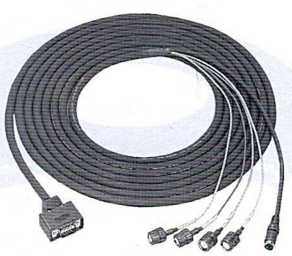
CCQX-3 (14-pin/XLR 4-pin)

•14-pin (male) ↔ XLR 4-pin (female), 3m (10 ft)
•For external DC input to DSR-300P/UVW-100BP, CA-537P/327P from CMA-8ACE/AC-550CE



CCXC-9DBS (9-pin/5BNCs)

•9-pin D-sub (male) ↔ BNCs (R/G/B/SYNC, male)
•5m (16.4 ft)
•For video output from DXC-H10/950P/9100P/390P



CCXC-9DD (9-pin/9-pin)

•9-pin D-sub (male) ↔ 9-pin D-sub (male)
•5m (16.4 ft)
•For video output from DXC-950P/9100P

CCZ-A cables (26-pin/26-pin)

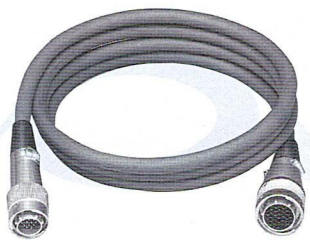
CCZ-A2 : 2m (6.5 ft)
CCZ-A5 : 5m (16.5 ft)
CCZ-A10 : 10m (33 ft)
CCZ-A25 : 25m (82 ft)
CCZ-A50 : 50m (164 ft)
CCZ-A100 : 100m (330 ft)

•26-pin (male) ↔ 26-pin (female)
•CA-537P ↔ CCU-M7P/M5P
•CA-537P, DSR-300P/UVW-100BP ↔ BVW-50P/BVV-5P/DNV-5P
•DXC-H10 ↔ CMA-H10
•DXC-390P ↔ CMA-D3CE

CCZQ-A cables (14-pin/26-pin)

CCZQ-A2 : 2m (6.6 ft)
CCZQ-A5 : 5m (16.5 ft)
CCZQ-A10 : 10m (33 ft)

•14-pin (male) ↔ 26-pin (female)
•CA-537P, DSR-300P/UVW-100BP ↔ VO-8800P, S-VHS VTR
•CA-537P ↔ CMA-8ACE



DV cables

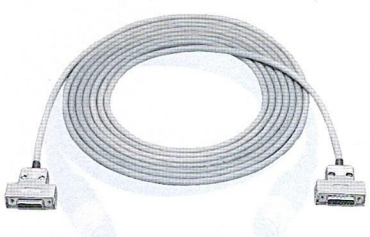
CCF-3L (6-pin with lock*/6-pin): 3.5 m (11.5 ft)
CCFD-3L (6-pin with lock*/4-pin): 3.5 m (11.5 ft)

*The connector on one end of the cable has a locking mechanism, and is attached to a DV connector with the same locking mechanism, such as the DSR-500WSP.

RCC-A cables (15-pin/15-pin)

RCC-5A : 5m (16 ft)
RCC-11A : 10m (33 ft)

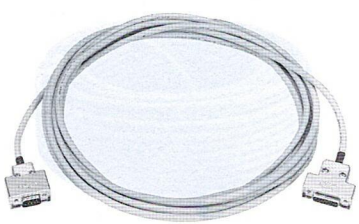
•15-pin (male) ↔ 15-pin (female)
•BVE-600 ↔ MXP-290
•BVE-910 (with BKE-916A) ↔ MXP-290



RCC-5AA cable (9-pin/15-pin)

Audio mixer control cable

•9-pin (male) ↔ 15-pin (female), 5m (16ft)
•PVE-500 ↔ MXP-290



RCC-15FT (33-pin/33-pin)

Remote control extension cable

•33-pin (male) ↔ 33-pin (female), 15m (49.2 ft)
•RM-450CE/500/555/580 ↔ All Type-5/7/9 VTRs, EVO-9800P/9850P

RCC-5F (33-pin/33-pin)

Remote control cable

•33-pin (male) ↔ 33-pin (female), 5m (16.4 ft)
•RM-450CE/500/555/580 ↔ All Type-5/7/9 VTRs, EVO-9800P/9850P

RCC-G cables (9-pin/9-pin)

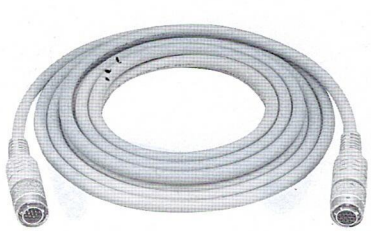
RCC-5G : 5m (16 ft)
RCC-10G : 10m (33 ft)
RCC-30G : 30m (99 ft)

•9-pin (male) ↔ 9-pin (male)
•PVW-2800P/2650P/2600P, UVW-1800P/1600P, DSR-2000P/85P/80P/70P/60P/40P, SVO-5800P/SVP-5600P ↔ 9-pin equipped Sony machines

SIC-M cables (14-pin/14-pin)

SIC-M1 : 1m (3.3 ft)
SIC-M5 : 5m (16.4 ft)
SIC-M15 : 15m (49 ft)
SIC-M25 : 25m (82 ft)
SIC-M50 : 50m (164 ft)

•14-pin (male) ↔ 14-pin (female)
•VPH-G90E/G90M/G70QM/G70QMG/G70VRM/D50QM ↔ PC-1271M



SYC cables (4-pin/4-pin)

SYC-2 : 2m (6.4 ft)
SYC-5 : 5m (16.4 ft)

•Mini DIN 4-pin(male) ↔ Mini DIN 4-pin (female)
•PVW/UVW series VTRs
•DVCAM VTRs
•SVO-5800P/9620/9500MDP, SVP-5600P/9020
•SVT-S3050P

UGC cables (BNC/BNC)

UGC-1 : 1m (3.3 ft)
UGC-2 : 2m (6.4 ft)
UGC-5 : 5m (16.4 ft)
UGC-10 : 10m (33 ft)

•BNC (male) ↔ BNC (male), 3C-2V

VDC-5A (7-pin/7-pin)

Dubbing cable

•7-pin (male) ↔ 7-pin (female), 5m (16.4 ft)
•VTRs with ↔ VTRs with
7-pinDUB connector 7-pin DUB connector
VCS-500
DA-500
•DA-500 ↔ DA-500

VDC-C5 (12-pin/12-pin)

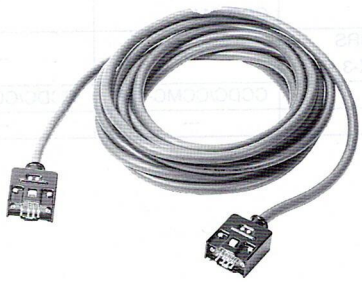
Dubbing cable

•12-pin/12-pin, 5m (16 ft)
•PVW series VTRs
•UVW-1800P/1600P

VMC cables (8-pin/8-pin)

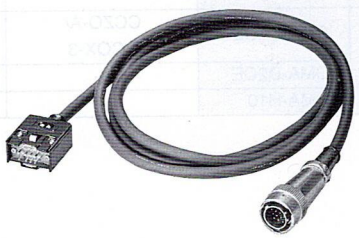
VMC-3P : 3m (10 ft)
VMC-5P : 5m (16.4 ft)
VMC-10P : 10m (33 ft)

•8-pin (male) ↔ 8-pin (male)
•VTR ↔ Monitor
TV tuner
•TV tuner ↔ projector



VMC-1MQ (14-pin/8-pin)

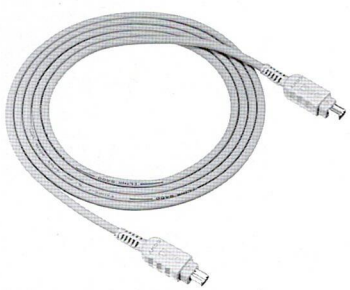
•14-pin (male) ↔ 8-pin (male), 1.5m (5 ft)
•VO-8800P ↔ Monitor
TV tuner



VMC i.LINK cables

(4-pin/4-pin)
VMC-IL4415 : 1.5 m(5 ft)
VMC-IL4435 : 3.5 m(12 ft)
(4-pin/6-pin)
VMC-IL4615 : 1.5 m(5 ft)
VMC-IL4635 : 3.5 m(12 ft)

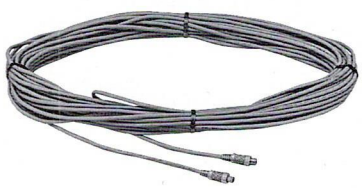
•DVCAM series



VK-110A/120A (4-pin/4-pin)

VK-110A : 10m (33 ft)
VK-120A : 20m (65.6 ft)

•4-pin (male) ↔ 4-pin (male)
•SSC-534AM ↔ SSM-504AM/724AMR



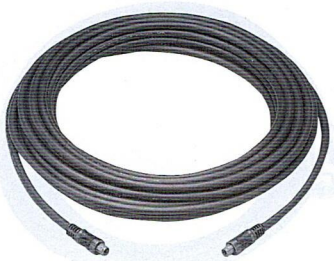
VK-305 (4-pin/4-pin)

•4-pin (male) ↔ 4-pin (female) , 5m (16.4 ft)
•Water-resistant extention cable
SSC-534AM ↔ SSM-504AM/724AMR

VK-310A/320A (4-pin/4-pin)

VK-310A : 10m (33 ft)
VK-320A : 20m (65.6 ft)

- 4-pin (male) ↔ 4-pin (male)
- SSC-534AM ↔ SSM-504AM/724AMR



Cable connections

		Video camera				
		DXC-D30P/D30WSP/637P/ 327BP with CA-537P	DXC-D30P/D30WSP/637P/ 327BP with CA-327P	DXC-950P	DXC-107AP	DXC-H10
VTR	VO-8800P or S-VHS VTR	CCZQ-A	CCQ-BRS	---	---	---
Camera control unit	CCU-M7P	CCZ-A	---	---	---	---
	CCU-M5P	CCZ-A	CCQ-AM	CCTZ-3RGB/3YC+ CCZ-A or CCTQ-3RGB+ CCQ-AM	---	---
camera AC adaptor	CMA-8ACE	CCZQ-A/ CCQX-3	CCQ-BRS CCQX-3	---	---	---
	CMA-D2CE	---	---	CCDC/CCMC-12P	CCDC/CCMC-12P	---
	CMA-H10	---	---	---	---	CCZ-A

Audio connecting cords

RK-5XLRF

RK-5XLRF: XLR-3-11C type (female)—phono, 5m
RK-5XLRM: XLR-3-12C type (male)—phono, 5m

BCT-MA Series Metal Videocassette Tapes

BCT-5MA/10MA/20MA/30MA (Small cassettes)
BCT-5MLA/10MLA/20MLA/30MLA/60MLA/90MLA (Large cassettes)

Model	Tape length m (feet)	Playing time (min)	Mass* g (lb.)
BCT-5MA	42 (138)	6	231 (0.51)
BCT-10MA	78 (256)	12	241 (0.53)
BCT-20MA	150 (492)	24	256 (0.56)
BCT-30MA	222 (728)	36	276 (0.61)
BCT-5MLA	58 (190)	9	625 (1.38)
BCT-10MLA	93 (305)	15	630 (1.39)
BCT-20MLA	172 (564)	29	650 (1.43)
BCT-30MLA	243 (797)	39	660 (1.45)
BCT-60MLA	457 (1,499)	75	730 (1.61)
BCT-90MLA	670 (2,198)	110	790 (1.74)

*With case

•For Betacam SP 2000PRO VTRs
•Offers high C/N, low head-wear, reduced drop-outs and outstandibg durability

UVWT-MA Series Metal Videocassette Tapes

UVWT–10MA/20MA/30MA (Small cassettes)
UVWT–60MLA/90MLA (Large cassettes)

Model	Tape length m (feet)	Playing time (min)	Mass* g (lb.)
UVWT-10MA	78 (256)	12	241 (0.53)
UVWT-20MA	150 (492)	24	256 (0.56)
UVWT-30MA	222 (728)	36	276 (0.61)
UVWT-60MLA	457 (1,499)	75	730 (1.61)
UVWT-90MLA	670 (2,198)	110	790 (1.74)

*With case

•For Betacam SP UVW Series VTRs
•Offers high quality and outstanding durability

PDV-ME Series Digital Videocassette Tapes

PDVM-12ME/22ME/32ME/40ME (Mini size)
PDV-34ME/64ME/94ME/124ME/184ME (Standard size)

Model	Tape length m (feet)	Recording/Playback time (min)	Mass* g (lb.)
PDVM-12ME	24 (79)	12	61 (0.134)
PDVM-22ME	41 (135)	22	62 (0.137)
PDVM-32ME	58 (190)	32	63 (0.139)
PDVM-40ME	71 (233)	40	64 (0.141)
PDV-34ME	61 (200)	34	124 (0.273)
PDV-64ME	112 (367)	64	128 (0.282)
PDV-94ME	163 (535)	94	132 (0.291)
PDV-124ME	214 (702)	124	135 (0.298)
PDV-184ME	315(1,033)	184	142 (0.313)

*With case

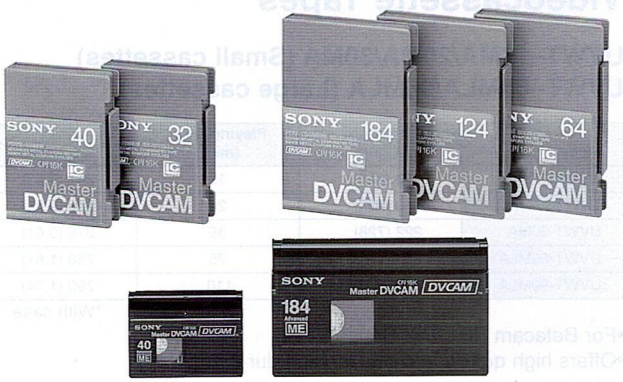
•For DVCAM DSR Series VTRs
•High output and high reliability due to pure cobalt advanced evaporated coating with DLC (Diamond Like Carbon) protective layer
•Built-in 16 kbit IC Memory

PDV-MEM Series Digital Videocassette Tapes (Master Tape)

PDVM-32MEM/40MEM (Mini size)
PDV-64MEM/124MEM/184MEM (Standard size)

Model	Tape length m (feet)	Recording/Playback time (min)	Mass* g (lb.)
PDVM-32MEM	58 (190)	32	63 (0.139)
PDVM-40MEM	71 (233)	40	64 (0.141)
PDV-64MEM	112 (367)	64	128 (0.282)
PDV-124MEM	214 (702)	124	135 (0.298)
PDV-184MEM	315(1,033)	184	142 (0.313)

*With case



•For DVCAM DSR Series VTRs
•Offers higher output, lower noise, higher C/N characteristics and extremely low error rates due to Hyper Evaticle II Magnetic Particles
•Ensures superior quality even at a four times high-speed transfer mode
•Built-in 16 kbit IC Memory

PDV-N Series Digital Videocassette Tapes (Non IC type)

PDVM-32N/40N (Mini size)
PDV-64N/124N/184N (Standard size)

Model	Tape length m (feet)	Recording/Playback time (min)	Mass* g (lb.)
PDVM-32N	58 (190)	32	63 (0.139)
PDVM-40N	71 (233)	40	64 (0.141)
PDV-64N	112 (367)	64	128 (0.282)
PDV-124N	214 (702)	124	135 (0.298)
PDV-184N	315(1,033)	184	142 (0.313)

*With case

- For DVCAM DSR Series VTRs
- High output and high reliability due to pure cobalt advanced evaporated coating with DLC (Diamond Like Carbon) protective layer
- Without IC Memory

PDV-12CL/PDVM-12CL Video Head Cleaning Cassette (for DVCAM)

- For DVCAM DSR Series VTRs

MQSE Series S-VHS Videocassette Tape

•Metal particle tape for S-VHS recording •Anti-static lid to protect the tape from dirt and dust particles for low dropouts •S-VHS mode recording can be activated via the detection holes on the back of the cassette • Rugged, pro-type album case

Model name	Playing time* (min)	Tape length m (ft)	Mass** g (lb.)
MQSE-30	30	45 (148)	340 (0.75)
MQSE-60	60	88 (289)	350 (0.77)
MQSE-120	120	173 (568)	370 (0.81)
MQSE-180	180	258 (847)	390 (0.86)

* Playing time = SP mode
**With case

7. Memory Stick

MSA-4A/8A/16A/32A/64A

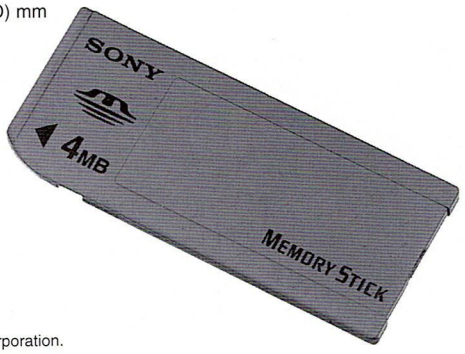
"Memory Stick"™ IC Memory Media

•IC memeory media which is designed for the coming generation after tape and disk. •Record and store still images and other data •Transfer the data to other products easily without cables •Compact and removable •Need no mechanism •Quick access •Simple 10-pin connection

Specifications

IC memory type: Flash memory
Storage capacity: 4MB/8MB/16MB/32MB/64MB
Connector type: 10-pin connector
Clock speed: Max. 20 MB/s
Write speed: Max. 1.50 MB/s
Read out speed: Max. 2.45 MB/s

Power source: 2.7 V to 3.6 V
Power consumption (average): Approx. 45 mA
Power consumption (standby): Approx. 130 µA
Dimensions: Approx. 21.5(W) × 50(H) × 2.8(D) mm (7/8 × 2 × 1/8 inches)
Mass: Approx. 4g



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